

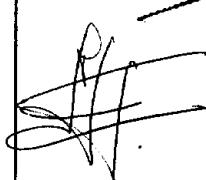
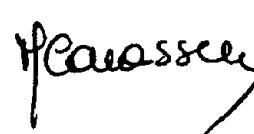
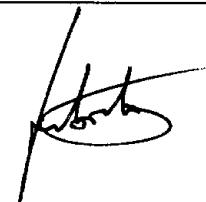


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## Title

## TECHNICAL NOTE RELATIVE TO THE CCN7 DEVELOPMENT IN THE SSR SOFTWARE

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## SUMMARY

This document contains the description of the activities performed for the modification of the SSR SOHO software, according to the CCN7.

The main activities are: analysis, coding, software generation, unit tests, functional tests, validation tests and delivery.

The modifications performed on the software concern the IT2 treatment and the management of the SEF and DEF counters.

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### PAGE ISSUE RECORD

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### 1 PURPOSE

This document is a technical note for the development of the modifications relative to the CCN7 in the SSR software. The SSR software is to be modified from the version 2.02 (launch version).

The modifications included in the CCN7 are relative to :

- IT2 treatment
- SEF and DEF counters management

As required by ESA, this document contains several paragraphs corresponding to each development phase:

- analysis of the modifications to be implemented
- detailed design of the both modifications
- coding and generation of the new software
- tests executed with the simulator at Toulouse and with the hardware bench at Vélizy
- patch delivery to NASA GSFC

### 2 DOCUMENTS

Designation	Reference
RD1 SSR Software Requirement Document	SH-SSR-ST-0057-MAV
RD2 DYNEX MAS281 datasheet	N/A
RD3 Technical and financial proposal for the SSR SOHO flight software maintenance	AVD.GF.80967.ASTR
RD4 Technical and financial proposal for IT2 and SEF/DEF counters modifications in SSR software	AVD.GF.83979.ASTR
RD5 SOHO Contract Change Notice N°4	DAI-ASTR-PC-066/2003
RD6 SOHO Contract No. 12946/98/NL/MS – CCN No. 7	SCI-M/497/AL/lد
RD7 SSR SW changes	SOE.SOHO.DM.1274.ASTR
RD8 Software Verification Test Plan	SH-SSR-PE-0146-MAV
RD9 Verification and Control Document	SH-SSR-NT-0147-MAV
RD10 Solid State Recorder User's Manual	SH-SSR-MU-131-MAV

### 3 ACRONYMS

ADD	Architectural Design Document
CR	Change Request
DDD	Detailed Design document
DEF	Double Event Failure
DMA	Direct Memory Access
FAR	Final Acceptance Review
FS	Flight Software
GSFC	Goddard's Space Flight Center
PI	Pending Interrupt (register of the MAS281 processor)
RID	Review Item Document
SCIDL	Software Configured Items Data List
SDE	Software Development Environment
SEF	Single Event Failure
SOHO	Solar and Heliospheric Observatory
SRD	Software Requirements Document
SSR	Solid State Recorder
SVF	Software Validation Facility (test bench)
TC	Tele Command
TM	Telemetry
TRB	Tests Review Board
TRKP	Tests Readiness Key Point
UO	Unité d'Œuvre
VMA	Validation et Maintenance Avionique (other name for AOE78 department)
VMS	Operating System for VAX machines

## 4 OPERATIONAL CONSTRAINTS

The MAS281 processor is a 16 bits processor (data and address.) At the GSFC control center, the TC channel permits only to patch one byte (8 bits) at each time. This constraint is very important in the case where it is necessary to patch a code derivation (memory address in the software): if the code being patched is read by the processor between the LSB and the MSB byte writing, the SSR SW behaviour is unknown and could probably lead to a general failure.

To bypass this problem, a special operation OMU03 in the SSR SW (requirements F24-040 and F24-110 of the specification), called the “Branch” function, is available. The operation OMU03 is located at address 0x1000 and its length is set to 10 words; if it is not enough, a call can be performed to another procedure located in a wider (and free) memory area. This operation is executed using a special TC command described in the User Manual (RD10.)

To patch a code derivation, the (simplified) procedure to be used is:

- activation of the SSR Standby mode
- uploading of the new operation in a new memory area
- uploading of the required instructions (writing in the addresses table) in the operation OMU03
- verification by memory dump of the uploaded words
- activation of the “Branch” function via the special TC
- verification by memory dump of the written words
- writing of NOP instructions in the operation OMU03

After these operations, the code derivation is performed and the call to the new function is activated.

## 5 SOFTWARE REQUIREMENTS SPECIFICATION

The change request (CR) for this development (see RD7) indicates which are the modified requirements in the SW SSR specification:

- **F12-040:** IT2 management,
- **F223-060** and **F223-070:** SEF and DEF counters management.

### 5.1 IT2 MANAGEMENT

The new text for the requirement is the following.

Clear the PI register using the RPI 002 instruction.

F12-040

Send a "End of dump/Record DMA request".

## 5.2 SEF AND DEF COUNTERS MANAGEMENT

The new text for the requirements is the following.

Add the SEF counter value to the 13 bits of the Total SEF Counter.	F223-060
Add the DEF counter value to the 3 bits of the Total DEF Counter.	F223-070

## 6 ANALYSIS AND PRELIMINARY DESIGN

There are 2 modified functions in the SSR software:

- SEF and DEF counters management (machine OMT02)
- IT2 management (machine PEI02)

### 6.1 IT2 MANAGEMENT

Due to a known bug in the MAS281 processor, the IT2 (and only this one) is not automatically cleared in the PI register after its processing.

The modification consists in introducing in the interrupt service routine a specific treatment to clear the corresponding bit in the PI register. The others interrupt service routine are not affected.

### 6.2 SEF AND DEF COUNTERS MANAGEMENT

The SEF and DEF counters are both 8 bits in size. When they reach their maximum value, they keep this value until reception from the ground of a reset TCH order.

The first modification consists in modifying the size of each counter (SEF and DEF counters), while keeping the total size of the structure (16 bits): the SEF counter becomes a 13 bits counter and the DEF counter becomes a 3 bits counter. The technical reasons for this change are given in RD4.

The second modification consists in modifying the algorithm which is in charge of their management. The test performed to stop the counters to their maximum value has to be removed. In this way, the counters will be automatically reset when they reach their maximum value.

## 7 DETAILED DESIGN

### 7.1 IT2 MANAGEMENT

The machine PEI02 is the function in charge of the IT2 processing. This machine is written in assembly code.

The modification consists in adding the clearing of the bit 2 in the PIR (Pending Interrupt Register), just before the calling of the procedure “End\_Dump\_Record\_Request”.

The design is modified as follows.

*Before:*

```
-- save IT context
<<Modes . End_Dump_Record_Request;>>
-- restore IT context
ENCODE
```

*After (new or modified lines in bold characters):*

```
-- save IT context
-- Clear Bit 2 of the PIR
<<Modes . End_Dump_Record_Request;>>
-- restore IT context
ENCODE
```

### 7.2 SEF AND DEF COUNTERS MANAGEMENT

The ADA structure containing the SEF and DEF counters is called T\_Statistics.

The concerned ADA procedure is called Update\_Statistics (OMT02).

The type T\_statistics is modified as follows:

*Before:*

```
Type T_Statistics is record
    SEF_DEF_Occurrence : T_Bank_Status_Table ;
    SEF_DEF_Overflow   : T_Bank_Status_Table ;
    SEF_Counter        : Integer range 0..255 ;
    DEF_Counter        : Integer range 0..255 ;
end record ;
```

```
For T_Statistics use
    record at mod KG_Max_Stats_Words ;
        SEF_DEF_Occurrence at 0 range 0..31 ;
        SEF_DEF_Overflow   at 2 range 0..31 ;
        SEF_Counter        at 4 range 0..7 ;
        DEF_Counter        at 4 range 8..15 ;
    end record ;
```

*After (new or modified lines in bold characters):*

```
Type T_Statistics is record
    SEF_DEF_Occurrence : T_Bank_Status_Table ;
    SEF_DEF_Overflow : T_Bank_Status_Table ;
    SEF_Counter : Integer range 0..8191 ;
    DEF_Counter : Integer range 0..7 ;
end record ;

For T_Statistics use
    record at mod KG_Max_Stats_Words ;
        SEF_DEF_Occurrence at 0 range 0..31 ;
        SEF_DEF_Overflow at 2 range 0..31 ;
        SEF_Counter at 4 range 0..12 ;
        DEF_Counter at 4 range 13..15 ;
    end record ;
```

The design is modified as follows:

*Before:*

```
-- IT 2 End of Dump/Record DMA shall be masked IN order to
-- to forbid the access to the statistics data simultaneously
-- by scrubbing and dump/record treatments.
<<Input_Output . Mask_Interruptions;>> -- OHI03
-- SEF/DEF occurrence status IS updated
IF      (P_Counter . SEF_Counter /= 0
        AND P_Counter . SEF_Overflow = 0) OR
        (P_Counter . DEF_Counter /= 0
        Convert (Statistics_Table) . SEF_DEF_Occurrence (P_Bank) := KG_Detection ;
END IF ;
-- SEF/DEF Overflow status IS updated
IF      P_Counter . SEF_Overflow /= 0 OR
        P_Counter . DEF_Overflow /= 0 THEN
        Convert (Statistics_Table) . SEF_DEF_Overflow (P_Bank) := KG_Detection :
END IF ;
-- SEF counter IS updated if not overflown
IF      P_Counter . SEF_Overflow = 0 THEN
    IF      Convert (Statistics_Table) . SEF_Counter <=
            K_Max_Counter - Convert (P_Counter . SEF_Counter) THEN
        Convert (Statistics_Table) . SEF_Counter :=
            Convert (Statistics_Table) . SEF_Counter +
            Convert (P_Counter . SEF_Counter) ;
    ELSE
        Convert (Statistics_Table) . SEF_Counter := K_Max_Counter ;
    END IF ;
END IF ;
-- DEF counter IS updated if not overflown
IF      P_Counter . DEF_Overflow = 0 THEN
    IF      Convert (Statistics_Table) . DEF_Counter <=
            K_Max_Counter - Convert (P_Counter . DEF_Counter) THEN
        Convert (Statistics_Table) . DEF_Counter :=
            Convert (Statistics_Table) . DEF_Counter +
            Convert (P_Counter . DEF_Counter) ;
    ELSE
```

```

        Convert (Statistics_Table) . DEF_Counter := K_Max_Counter ;
    END IF ;
END IF ;
<<TM_Parameters . Write_Statistics (Statistics_Table);>> OGM11
-- Interruptions are authorized.
<<Input_Output . Restore_Interruptions;>> OHIO4
ENCODE

```

*After (new or modified lines in bold characters, suppressed lines in crossed out characters):*

```

-- IT 2 End of Dump/Record DMA shall be masked IN order to
-- to forbid the access to the statistics data simultaneously
-- by scrubbing and dump/record treatments.
<<Input_Output . Mask_Interruptions;>> -- OHIO3
-- SEF/DEF occurrence status IS updated
IF      (P_Counter . SEF_Counter /= 0
           AND P_Counter . SEF_Overflow = 0) OR
           (P_Counter . DEF_Counter /= 0
            Convert (Statistics_Table) . SEF_DEF_Occurrence (P_Bank) := KG_Detection ;
END IF ;
-- SEF/DEF Overflow status IS updated
IF      P_Counter . SEF_Overflow /= 0 OR
           P_Counter . DEF_Overflow /= 0 THEN
            Convert (Statistics_Table) . SEF_DEF_Overflow (P_Bank) := KG_Detection :
END IF ;
-- SEF counter IS updated if not overflown
IF      P_Counter . SEF_Overflow = 0 THEN
    IF      Convert (Statistics_Table) . SEF_Counter <=
           K_Max_Counter Convert (P_Counter . SEF_Counter) THEN
        Convert (Statistics_Table) . SEF_Counter :=
           Convert (Statistics_Table) . SEF_Counter +
           Convert (P_Counter . SEF_Counter) ;
    ELSE
        Convert (Statistics_Table) . SEF_Counter := K_Max_Counter ;
    END IF ,
END IF ;
-- DEF counter IS updated if not overflown
IF      P_Counter . DEF_Overflow = 0 THEN
    IF      Convert (Statistics_Table) . DEF_Counter <=
           K_Max_Counter Convert (P_Counter . DEF_Counter) THEN
        Convert (Statistics_Table) . DEF_Counter :=
           Convert (Statistics_Table) . DEF_Counter +
           Convert (P_Counter . DEF_Counter) ;
    ELSE
        Convert (Statistics_Table) . DEF_Counter := K_Max_Counter ;
    END IF ;
END IF ;
-- NOP instructions to keep the original size (iso-map generation)
<<TM_Parameters . Write_Statistics (Statistics_Table);>> OGM11
-- Interruptions are authorized.
<<Input_Output . Restore_Interruptions;>> OHIO4
ENCODE

```

## 8 CODING AND GENERATION

Since the SOHO satellite is already launched (since 1995), the constraint for the generation of the new software is linked to the memory map. In order to minimize the number of patched words, the generation process has to be modified to keep in their memory place the non-modified algorithms. For the modified algorithms, there are two ways:

- If the modification reduces the size (number of hexadecimal words) of the algorithm, the algorithm keeps its memory address and the liberated and remaining words (at the end of the algorithm) are replaced by one or more NOP instructions. Thus, the algorithm keeps its size and the next algorithms (in the memory map) are not shifted forward.
- If the modification increases the size (number of hexadecimal words) of the algorithm, the algorithm is moved to a vacant memory place in the map and the liberated memory addresses are marked as reserved for the link tool. Like this, the next algorithms (in the memory map) are not shifted forward.

The new software version including the proposed modifications is **FS203**. This number is inserted in the software, using the MARK.LNK file during the linking step. This file also contains two checksums (MSB and LSB) and a software identifier (constant value whatever the software version.)

For the FS202, the MARK.LNK file contains the following lines:

```
STORE VPES_ROM_Checksum_LSB = 09AD8
STORE VPES_ROM_Checksum = 0147A
STORE VPES_Software_Ident_1 = 0CACA
STORE VPES_Software_Ident_2 = 0101
```

The software version is repeated twice: CACA (0xCA is 202 in decimal), like the software identifier: 0101.

### 8.1 IT2 MANAGEMENT

The PEI02 algorithm (in GEI\_IT\_C.COD) is modified to insert the clearing of the bit 2 in the PI register, ie the size of the algorithm is increased. This algorithm has to be moved to a new memory zone, in the free margin of the memory map. The free margin in FS202 is from 0x100B to 0x1FFB.

The chosen address for PEI02 is **0x1010**. The choice of keeping 6 free words after the last used address (from 0x100B to 0x100F) is the opportunity to lengthen the last algorithm ending at 0x100A.

To move PEI02 to his new address and to reserve the memory zone of the PEI02 old version, some new sections of code have to be created. In FS202, there is only one section of code, called ISECT and used for all the algorithms. For the new SW version, 2 sections of code have to be created:

- one for the algorithms with an address higher than the old PEI02: **ISELECT1**. The ISELECT1 section replaces the ISECT section for the following algorithms: PEI03, PEI04, PEI05 and PES1. The impacted files are GEI\_IT\_C.COD and GES\_SET\_PU\_C.COD.
- one for the new PEI02: **ISELECTM1**. The impacted file is GEI\_IT\_C.COD.

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The MMUSOHO.LNK file for the TLD Linker is modified as follows.

*Before:*

```

MAXADR FFFF
ADDRESS STATES 0
NODE GES_SET_PU
- LET A$HEAP=8000
- LET A$HEAPND=FFFF
- LET A$MAIN_STACKSIZE=2000
- LET A$RTX_STACKSIZE=0100
- INCLUDE A_KNL:RTX_START.OBJ
LET A$PDO=0
INCLUDE obs_ref_disk:[C_MMUSOHO.MAINTENANCE.GEN_FS.1750A]DEF_GLOBAL_GEN_S.OBJ
INCLUDE obs_ref_disk:[C_MMUSOHO.MAINTENANCE.GEN_FS.1750A]MAM_MODES_S.OBJ
INCLUDE obs_ref_disk:[C_MMUSOHO.MAINTENANCE.GEN_FS.1750A]MGM_TM_PAR_S.OBJ
INCLUDE obs_ref_disk:[C_MMUSOHO.MAINTENANCE.GEN_FS.1750A]MHI_I_O_S.OBJ
INCLUDE obs_ref_disk:[C_MMUSOHO.MAINTENANCE.GEN_FS.1750A]MMM_MEM_UNIT_S.OBJ
INCLUDE obs_ref_disk:[C_MMUSOHO.MAINTENANCE.GEN_FS.1750A]MHD_DELAYS_S.OBJ
INCLUDE obs_ref_disk:[C_MMUSOHO.MAINTENANCE.GEN_FS.1750A]MGC_COM_ACQ_S.OBJ
INCLUDE obs_ref_disk:[C_MMUSOHO.MAINTENANCE.GEN_FS.1750A]MMS_SCR_S.OBJ
INCLUDE obs_ref_disk:[C_MMUSOHO.MAINTENANCE.GEN_FS.1750A]MMT_STATS_S.OBJ
INCLUDE obs_ref_disk:[C_MMUSOHO.MAINTENANCE.GEN_FS.1750A]MMD_DUMP_REC_S.OBJ
INCLUDE obs_ref_disk:[C_MMUSOHO.MAINTENANCE.GEN_FS.1750A]MAT_TM_TC_S.OBJ
INCLUDE obs_ref_disk:[C_MMUSOHO.MAINTENANCE.GEN_FS.1750A]MMU_UP_DW_S.OBJ
INCLUDE obs_ref_disk:[C_MMUSOHO.MAINTENANCE.GEN_FS]GEI_IT_C.OBJ
INCLUDE obs_ref_disk:[C_MMUSOHO.MAINTENANCE.GEN_FS]GES_SET_PU_C.OBJ
SEARCH A_KNL:RTX.OLB
- SEARCH A_RTL:RTXSIM.OBJ
USE obs_ref_disk:[C_MMUSOHO.DEV.PUBLI]MARK.LNK
CSECT UPLOAD_DOWNLOAD.OMU03,$ISELECT$,1000
END

```

*After (new or modified lines in bold characters):*

```

MAXADR FFFF
ADDRESS STATES 0
NODE GES_SET_PU

```



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```
- LET A$HEAP=8000
- LET A$HEAPND=FFFF
- LET A$MAIN_STACKSIZE=2000
- LET A$RTX_STACKSIZE=0100
- INCLUDE A_KNL:RTX_START.OBJ
LET A$PD0=0
-- Beginning of Instructions control SECTions
INCLUDE obs_ref_disk:[C_MMUSOHO.MAINTENANCE.GEN_FS]GES_SET_PU_C.OBJ(GES_SET_PU(JSECT))
INCLUDE obs_ref_disk:[C_MMUSOHO.MAINTENANCE.GEN_FS]GEI_IT_C.OBJ(GEI_IT(IVSECT, SVSECT))
INCLUDE obs_ref_disk:[C_MMUSOHO.MAINTENANCE.GEN_FS.1750A]DEF_GLOBAL_GEN_S.OBJ
INCLUDE obs_ref_disk:[C_MMUSOHO.MAINTENANCE.GEN_FS.1750A]MAM_MODES_S.OBJ
INCLUDE obs_ref_disk:[C_MMUSOHO.MAINTENANCE.GEN_FS.1750A]MGM_TM_PAR_S.OBJ
INCLUDE obs_ref_disk:[C_MMUSOHO.MAINTENANCE.GEN_FS.1750A]MHI_I_O_S.OBJ
INCLUDE obs_ref_disk:[C_MMUSOHO.MAINTENANCE.GEN_FS.1750A]MMM_MEM_UNIT_S.OBJ
INCLUDE obs_ref_disk:[C_MMUSOHO.MAINTENANCE.GEN_FS.1750A]MHD_DELAYS_S.OBJ
INCLUDE obs_ref_disk:[C_MMUSOHO.MAINTENANCE.GEN_FS.1750A]MGC_COM_ACQ_S.OBJ
INCLUDE obs_ref_disk:[C_MMUSOHO.MAINTENANCE.GEN_FS.1750A]MMS_SCR_S.OBJ
INCLUDE obs_ref_disk:[C_MMUSOHO.MAINTENANCE.GEN_FS.1750A]MMT_STATS_S.OBJ
INCLUDE obs_ref_disk:[C_MMUSOHO.MAINTENANCE.GEN_FS.1750A]MMD_DUMP_REC_S.OBJ
INCLUDE obs_ref_disk:[C_MMUSOHO.MAINTENANCE.GEN_FS.1750A]MAT_TM_TC_S.OBJ
INCLUDE obs_ref_disk:[C_MMUSOHO.MAINTENANCE.GEN_FS.1750A]MMU_UP_DW_S.OBJ
INCLUDE obs_ref_disk:[C_MMUSOHO.MAINTENANCE.GEN_FS]GEI_IT_C.OBJ(GEI_IT(ISECT, ISECT1))
INCLUDE obs_ref_disk:[C_MMUSOHO.MAINTENANCE.GEN_FS]GES_SET_PU_C.OBJ(GES_SET_PU(ISECT1))
INCLUDE obs_ref_disk:[C_MMUSOHO.MAINTENANCE.GEN_FS]GEI_IT_C.OBJ(GEI_IT(ISECTM1))
-- End of Instructions control SECTions
-- Beginning of Constants control SECTIONS
INCLUDE obs_ref_disk:[C_MMUSOHO.MAINTENANCE.GEN_FS]GES_SET_PU_C.OBJ(GES_SET_PU(SPSECT, CHSECT))
-- End of Constants control SECTIONS
-- Beginning of Variables control SECTIONS
INCLUDE obs_ref_disk:[C_MMUSOHO.MAINTENANCE.GEN_FS]GEI_IT_C.OBJ(GEI_IT(VSECT))
-- End of Variables control SECTIONS
SEARCH A_KNL:RTX.OLB
- SEARCH A_RTL:RTXSIM.OBJ
RESERVE C01,C26
USE obs_ref_disk:[C_MMUSOHO.MAINTENANCE.GEN_FS]MARK.LNK
CSECT UPLOAD_DOWNLOAD.OMU03,$ISECT$,1000
CSECT GEI_IT,ISECTM1,1010
END
```

The added code in PEI02 is the following.

*Before:*

```
; set bit 1 (IT 1 authorization)
SBR    1,R0          ;
; authorize IT        ;
XIO    R1,ENBL       ;
```

*After (new or modified lines in bold characters):*

```
; set bit 1 (IT 1 authorization)
SBR    1,R0          ;
;      -- Clear bit 2 of the Pending Interrupt Register
; no of interrupt to reset
LISP   R1,2          ;
;Clear bit 2 of the Pending Interrupt Register
XIO    R1,RPI         ;
; authorize IT        ;
XIO    R1,ENBL       ;
```

## 8.2 SEF AND DEF COUNTERS MANAGEMENT

The algorithm OMT02 (in MMT\_STATS\_S.COD) is modified as described in the analysis. Since its size is reduced, there is no need to modify the MMUSOHO.LNK file. Some NOP instructions will be added at the end of the algorithm to keep its original size.

**Nota:** the modifications concerning the type T\_statistics have already been presented in §6.2.

The code in OMT02 is modified as follows.

*Before:*

```
-- SEF/DEF occurrence status IS updated

IF (P_Counter . SEF_Counter /= 0
    AND P_Counter . SEF_Overflow = 0) OR
    (P_Counter . DEF_Counter /= 0
    AND P_Counter . DEF_Overflow = 0) THEN

    Convert (Statistics_Table) . SEF_DEF_Occurrence (P_Bank)
        := KG_Detection ;
END IF ;

-- SEF/DEF overflow status IS updated

IF P_Counter . SEF_Overflow /= 0 OR
    P_Counter . DEF_Overflow /= 0 THEN

    Convert (Statistics_Table) . SEF_DEF_Overflow (P_Bank)
        := KG_Detection ;
END IF ;

-- SEF counter IS updated IF not overflown
```

```

IF P_Counter . SEF_Overflow = 0 THEN
    IF Convert (Statistics_Table) . SEF_Counter <=
        K_Max_Counter - Convert (P_Counter . SEF_Counter) THEN

        Convert (Statistics_Table) . SEF_Counter :=
            Convert (Statistics_Table) . SEF_Counter +
            Convert (P_Counter . SEF_Counter) ;
    ELSE
        Convert (Statistics_Table) . SEF_Counter := K_Max_Counter ;
    END IF ;
END IF ;

-- DEF counter IS updated IF not overflowed

IF P_Counter . DEF_Overflow = 0 THEN
    IF Convert (Statistics_Table) . DEF_Counter <=
        K_Max_Counter - Convert (P_Counter . DEF_Counter) THEN

        Convert (Statistics_Table) . DEF_Counter :=
            Convert (Statistics_Table) . DEF_Counter +
            Convert (P_Counter . DEF_Counter) ;
    ELSE
        Convert (Statistics_Table) . DEF_Counter := K_Max_Counter ;
    END IF ;
END IF ;

TM_Parameters . Write_Statistics (
    Statistics_Table);                                -- OGM11

```

*After (new or modified lines in bold characters, suppressed lines in crossed out characters):*

```

-- SEF/DEF occurrence status IS updated

IF (P_Counter . SEF_Counter /= 0
    AND P_Counter . SEF_Overflow = 0) OR
    (P_Counter . DEF_Counter /= 0
    AND P_Counter . DEF_Overflow = 0) THEN

    Convert (Statistics_Table) . SEF_DEF_Occurrence (P_Bank)
        := KG_Detection ;
END IF ;

-- SEF/DEF overflow status IS updated

IF P_Counter . SEF_Overflow /= 0 OR
    P_Counter . DEF_Overflow /= 0 THEN

    Convert (Statistics_Table) . SEF_DEF_Overflow (P_Bank)
        := KG_Detection ;
END IF ;

-- SEF counter IS updated IF not overflowed

IF P_Counter . SEF_Overflow = 0 THEN
IF Convert (Statistics_Table) . SEF_Counter <=
K_Max_Counter - Convert (P_Counter . SEF_Counter) THEN

    Convert (Statistics_Table) . SEF_Counter :=
        Convert (Statistics_Table) . SEF_Counter +
        Convert (P_Counter . SEF_Counter) ;

```

```

    ELSE
        Convert (Statistics_Table) . SEF_Counter := K_Max_Counter ;
    END IF ;
END IF ;

-- DEF counter IS updated IF not overflowed

IF P_Counter . DEF_Overflow = 0 THEN
    IF Convert (Statistics_Table) . DEF_Counter <=
        K_Max_Counter - Convert (P_Counter . DEF_Counter) THEN

        Convert (Statistics_Table) . DEF_Counter :=
            Convert (Statistics_Table) . DEF_Counter +
            Convert (P_Counter . DEF_Counter) ;
    ELSE
        Convert (Statistics_Table) . DEF_Counter := K_Max_Counter ;
    END IF ;
END IF ;
-- NOP instructions to keep the original size (iso-map generation)
Machine_Code.NOP;
TM_Parameters . Write_Statistics (
    Statistics_Table);                                -- OGM11

```

In the first step of the generation, the .COD files are compiled (with TLD ADA compiler and TLD ASM assembler), the modules are linked (with TLD linker), the produced LDM file is converted to INTEL format (for PROM programming) and the checksums (LSB and MSB) are computed.

With the computed checksums, the file MARK.LNK has to be updated.

In the second step of the generation, it is only necessary to execute the TLD linker, to produce the INTEL format files for PROM programming and to verify that the computed checksums are correct.

After the second step of the generation, the file MARK.LNK contains the following values:

```
STORE VPES_ROM_Checksum_LSB = 029BA
STORE VPES_ROM_Checksum      = 0148D
STORE VPES_Software_Ident_1  = 0CBBCB
STORE VPES_Software_Ident_2  = 0101
```

## 9 PATCH PRODUCTION

After the generation, it is necessary to produce the patches which are going to be used at the GSFC (with the in-flight SOHO SSR) and at EADS-Astrium Vélizy (with the bench) to upload the new software version.

### 9.1 TOOLS FOR THE PATCH

The tools to be used are the following:

- IMAGE\_MEM: this tool makes an analysis of two SW versions (given in parameter) and produces a listing of the differences. The listing of differences is put in a file generally named "diff\_image.res".
- PATCH\_GEN: using the listing of differences produced by IMAGE\_MEM, this tool produces the patch files. For the GSFC, the patch is constituted of one TC file for each modified byte.

The listing produced by IMAGE\_MEM is ordered by growing addresses. Consequently, the TC files produced by PATCH\_GEN have the same order. According to the performed patch in the software, some bytes have to be patched before others because the in-flight SSR SW is not completely inactive during the patch procedure execution (it is put in Standby mode.)

For the proposed modifications, the main parts of the software which are to be changed are the following:

- OMT02 is rewritten at the same address: the TC files can be uploaded directly

- PEI02 is rewritten at a new address and its new address is changed in the IT table (code derivation): the patch uploading is safe for the new words of the algorithm as long as the IT table is not modified. Concerning the new address of PEI02 in the IT table, there is a safety problem (for the SSR SW) as explained in the paragraph OPERATIONAL CONSTRAINTS at page 3. Using the operation OMU03, the code derivation can be performed in a safe way.

## **9.2 CODE INSTRUCTIONS IN THE OPERATION OMU03**

The code instructions for OMU03 are the following:

```
Machine_Code.Lim (R1, K_Adress_Omu03);  

Machine_Code.St (R1, K_Adress_Pei02);
```

With the constants declared as:

```
K_Adress_Omu03 : CONSTANT Integer := 16#1010#;  

K_Adress_Pei02 : CONSTANT Integer := 16#0048#;
```

The above code instructions have been inserted in the algorithm OMU03 and an informal software version (V204) has been generated. The corresponding words are (in hexadecimal): 8510 1010 9010 0048. Thus, the 2 instructions LIM and ST replace 4 NOP instructions (NOP is 1 word 0xFF00) in the original version of OMU03.

## **9.3 COMPLETE PATCH PROCEDURE**

The main steps of the entire patch procedure are:

- Activation of the SSR Standby mode
- Patch of the modified words in OMT02 algorithm
- Patch of the new PEI02 algorithm at the new address
- Patch of the operation OMU03 (SW “Branch” function for safe code derivation)
- Patch of the software label (V203) and of the corresponding checksum words
- Dump of the modified memory zones and verifications of the previous steps
- Activation of the SW “Branch” function via the special TC (see User Manual ref RD10)
- Dump of the modified memory zones and verifications
- Erasing of the instructions words in the operation Branch (writing of NOP)

The exhaustive list of the patches (address and data) is given in the §11.

## 9.4 OUTPUTS OF THE PATCH\_GEN TOOL

The PATCH\_GEN tool generates a set of TC files for each modified byte in the new software. The listing of differences produced by IMAGE\_MEM is analysed and the number of the produced TC files is reduced to the minimum. The following rules are applied:

- When two patch addresses are consecutive, the second set of TC files does not modify the address because it has been automatically increased at the end of the first patch.
- When a data word differs only of one byte (for example the LSB) regarding to the previous version, the non-modified byte (respectively the MSB byte) will not be included in the set of TC files.

## 10 TESTS

There are 3 kinds of tests:

- unit tests: testing of the modules (algorithms), taken separately,
- functional tests: testing of the software functions (group of algorithms), taken separately,
- validation tests: testing of the whole software (group of all functions), with some hardware interfaces identical to (or representative) the satellite hardware boards.

The tests performed for the software SSR SOHO use 2 tests means:

- TLD simulator for the unit and functional tests (provided by EADS-Astrium Toulouse)
- Hardware bench for the validation tests (provided by EADS-Astrium Vélizy)

The aim of the executed tests is:

- to verify that the performed modifications in the software meet the new or modified software requirements,
- to verify that there is no regression in the software behaviour, regarding to the FS202.

### 10.1 UNIT TESTS

The unit tests are performed using the tool called TESTUT. This tool performs the following actions:

- production of a memory image containing only the module to be tested,
- modification of the tests sequences (by the user) according to the algorithm structure,

- execution of the tests sequences with automatic verification of the expected results,
- production of a tests coverage report (coverage of branches and decisions).

#### **10.1.1 IT2 MANAGEMENT**

The IT2 management algorithm (PEI02) is coded in assembler language and contains some particular instructions (jump JC) which do not permit this algorithm to be tested using the TESTUT tool. For this reason, the PEI02 algorithm is tested by analysis.

This analysis is performed by a software expert and given in appendix §13.1.

#### **10.1.2 SEF AND DEF COUNTERS MANAGEMENT**

The modified algorithm is OMT02. The aim of the unit test is to verify that the SEF and DEF counters are updated correctly, according to their new management.

The full coverage of branches and decisions is obtained with 12 tests (each test has different initial conditions in order to activate the whole set of cases.)

The table below gives a description of the 12 different tests (all values are in hexadecimal format.) The structure “Statistics\_Table” (INPUTS and OUTPUT columns) contains the words ST2-1 to ST2-5 of the TM frame. The “Bank” parameter is the physical memory bank on which statistics are to be updated.

	<b>SSR SOHO</b>	Ref : SOE.SH.NT.1259.ASTR Issue : 1 Rev. : 0 Date : 13/09/2005 Page : 18
--	-----------------	---

Unit Test number	INPUTS		OUTPUT		<b>Description</b>
	Statistics_Table	SEF_Overflow/ SEF_Counter/ DEF_Overflow/ DEF_Counter	Bank	Statistics_Table	
1	{0, 0, 0, 0, 0}	1/ 0/ 0/ 0	0	{ 0, 0, 8000, 0, 0}	Verify that the SEF/DEF overflow of the bank 0 is set in Statistics_Table.
2	{0, 0, 0, 0, 0}	1/ 7/ 0/ 0	31	{ 0, 0, 0, 1, 0}	Verify that the SEF/DEF overflow of the bank 31 is set in Statistics_Table and that the SEF_Counter is not taken into account when SEF overflow is set.
3	{0, 0, 0, 0, 0}	0/ 0/ 1/ 0	16	{ 0, 0, 0, 8000, 0}	Verify that the SEF/DEF overflow of the bank 16 is set in Statistics_Table.
4	{0, 0, 0, 0, 0}	0/ 0/ 1/ 7	15	{ 0, 0, 1, 0, 0}	Verify that the SEF/DEF overflow of the bank 15 is set in Statistics_Table and that the DEF_Counter is not taken into account when DEF overflow is set.
5	{0, 0, 0, 0, 0}	0/ 5/ 0/ 0	0	{8000, 0, 0, 0, 28}	Verify that the SEF/DEF occurrence of the bank 0 is set in Statistics_Table and that the SEF counter is added to the current value.
6	{0, 0, 0, 0, AA00}	0/ 2/ 0/ 0	15	{1, 0, 0, 0, AA10}	Verify that the SEF/DEF occurrence of the bank 15 is set in Statistics_Table and that the SEF counter is added to the current value.
7	{0, 0, 0, 0, 0}	0/ 0/ 0/ 5	31	{0, 1, 0, 0, 5}	Verify that the SEF/DEF occurrence of the bank 31 is set in Statistics_Table and that the DEF counter is added to the current



		INPUTS		OUTPUT	
Unit Test number	Statistics_Table	SEF_Overflow/ SEF_Counter/ DEF_Overflow/ DEF_Counter	Bank	Statistics_Table	Description
					value.
8	{0, 0, 0, 0, 5}	0/ 0/ 0/ 2	16	{0, 8000, 0, 0, 7}	Verify that the SEF/DEF occurrence of the bank 16 is set in Statistics_Table and that the DEF counter is added to the current value, up to its maximum value.
9	{0, 0, 0, 0, FE}	0/ 0/ 0/ 1	7	{100, 0, 0, 0, FF}	Verify that the SEF/DEF occurrence of the bank 7 is set in Statistics_Table and that the DEF counter is added to the current value, up to its maximum value.
10	{0, 0, 0, 0, 6}	0/ 0/ 0/ 3	12	{8, 0, 0, 0, 1}	Verify that the SEF/DEF occurrence of the bank 12 is set in Statistics_Table and that the DEF counter is added to the current value, with automatic reset when the maximum value is reached.
11	{0, 0, 0, 0, FFD0}	0/ 5/ 0/ 0	22	{0, 200, 0, 0, FFF8}	Verify that the SEF/DEF occurrence of the bank 22 is set in Statistics_Table and that the SEF counter is added to the current value, up to its maximum value.
12	{0, 0, 0, 0, FFE0}	0/ 7/ 0/ 0	27	{0, 10, 0, 0, 18}	Verify that the SEF/DEF occurrence of the bank 27 is set in Statistics_Table and that the SEF counter is added to the current value, with automatic reset when the maximum value is reached.

The results for OMT02 are presented below.

<b>Unit Test</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>	<b>7</b>	<b>8</b>	<b>9</b>	<b>10</b>	<b>11</b>	<b>12</b>
<b>Result</b>	OK	OK	OK									

<b>Branch coverage</b>	100%
<b>Decision coverage</b>	100%

## 10.2 FUNCTIONAL TESTS

The functional tests are executed using the TLD 1750 simulator. A specific context has to be created for the execution of the tests: this context is a memory image of the SW at the end of the initialisation phase (when the SW has reached the Standby mode.)

Using the SVTP (see RD8) and the VCD (see RD9) produced for the FS202, the list of functional tests concerning the modified requirements is the following.

<b>Requirement</b>	<b>Test case</b>	<b>Test sequence</b>
F12-040	EFG-MD030	SFG_MD003
	EFG-MD031	SFG_MD003
	EFG-MD032	SFG_MD003
	EFG-MD033	SFG_MD003
	EFG-MD035	SFG_MD003
	EFG-MD036	SFG_MD003
	EFG-MD037	SFG_MD003
	EFG-MD130	SFG_MD004
	EFG-MD131	SFG_MD004
	EFG-MD132	SFG_MD004
	EFG-MD133	SFG_MD004
	EFG-MD135	SFG_MD004
	EFG-MD136	SFG_MD004
	EFG-MD137	SFG_MD004
	EFG-MM401	SFG_MD004

<b>Requirement</b>	<b>Test case</b>	<b>Test sequence</b>
F223-060	EFG-MD031	SFG_MD003
	EFG-MS041	SFG_MS002
F223-070	EFG-MD033	SFG_MD003
	EFG-MD035	SFG_MD003
	EFG-MS043	SFG_MS002
	EFG-MS046	SFG_MS002

### 10.2.1 IT2 MANAGEMENT

According to the above table, the tests sequences to be executed for the testing of the IT2 management are SFG\_MD003 and SFG\_MD004.

The procedure titles are given in the below table:

<b>Test sequence</b>	<b>Test case</b>	<b>Test case title</b>
SFG_MD003	EFG_MD030	Continue Dump at begin of stack
	EFG_MD031	Continue Dump on two pages - Selection 1
	EFG_MD032	Continue Dump on two pages - Selection 0
	EFG_MD033	Continue Dump on one page
	EFG_MD035	Continue Dump on two pages - with page skip
	EFG_MD036	Continue Dump with skipped pages at begin of stack
	EFG_MD037	Continue Dump - standby command executing
SFG_MD004	EFG_MD130	Continue Record at end of stack
	EFG_MD131	Continue Record on two pages - Selection 1
	EFG_MD132	Continue Record on two pages - Selection 1
	EFG_MD133	Continue Record on one page
	EFG_MD135	Continue Record on two pages - with page skip
	EFG_MD136	Continue Record with skipped pages at end of stack
	EFG_MD137	Continue Record - standby command executing
	EFG_MM401	Continue on Dump/Record DMA - forbidden modes

The description of the test procedures is given in the SVTP (see RD8). The content of the procedures (requirements, objectives, environment, activities and verifications) has not been changed. Only the results are different from those obtained with the previous versions used for each test (FS200 for SFG\_MD003, FS101 for SFG\_MD004), due to the new management of the SEF/DEF counters.

The results of the procedures are given in appendix §13.2 (for the test case SFG\_MD003) and §13.3 (for the test case SFG\_MD004.) The FUTE database has been updated for the results of these procedures.

#### **10.2.2 SEF AND DEF COUNTERS MANAGEMENT**

According to the above table, the tests sequences to be executed for the testing of the SEF/DEF counters management are SFG\_MD003 and SFG\_MS002.

The procedure titles are given in the below table:

<b>Test sequence</b>	<b>Test case</b>	<b>Test case title</b>
SFG_MD003	EFG_MD030	Continue Dump at begin of stack
	EFG_MD031	Continue Dump on two pages - Selection 1
	EFG_MD032	Continue Dump on two pages - Selection 0
	EFG_MD033	Continue Dump on one page
	EFG_MD035	Continue Dump on two pages - with page skip
	EFG_MD036	Continue Dump with skipped pages at begin of stack
	EFG_MD037	Continue Dump - standby command executing
SFG_MS002	EFG_MS040	Continue normal scrubbing
	EFG_MS041	Continue normal scrubbing with normal skip
	EFG_MS042	Continue normal scrubbing with extra skip
	EFG_MS043	Continue normal scrubbing - all stack OFF
	EFG_MS044	Continue normal scrubbing at end of stack
	EFG_MS045	Continue normal scrubbing at end of stack with skip
	EFG_MS046	Continue normal scrubbing - Stop command executing

The description of the test procedures is given in the SVTP (see RD8). The content of the procedures (requirements, objectives, environment, activities and verifications) has not been changed. Only the results are different from those obtained with the previous versions used for each test (FS200 for SFG\_MD003, FS102 for SFG\_MS002), due to the new management of the SEF/DEF counters.

**Nota:** some procedures of the test sequence SFG\_MS002 were not listed in the table of the §10.2. The reason is that this test sequence is designed to test other requirements which do not concern these algorithms. In the frame of the reuse policy, the test sequence has not been modified.

The results of the procedures are given in appendix §13.2 (for the test case SFG\_MD003) and §13.4 (for the test case SFG\_MS002.) The FUTE database has been updated for the results of these procedures.

### 10.3 HARDWARE VALIDATION TESTS

The hardware validation tests have been performed, using the SSR Unit Tester in EADS-Astrium Vélizy.

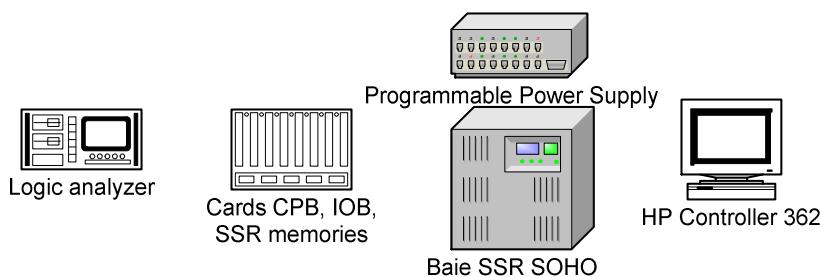


Figure 1 : General View of the on-ground test set-up (SSR Hardware Unit Tester and SSR-BB)

The test bench contains a MAS281 (on the CPB board). With the logic analyser connected on the CPB, it is possible to monitor the MAS281 activity.

#### 10.3.1 INITIALISATION OF THE SSR TEST BENCH

The following procedure has been used when operating on the SSR-Bread-board in EADS-Astrium Vélizy ASE3, for what concerns the Patch FS203 and FS204, the FS202 being embedded on-board in the SSR Equipment.

- 1- **Switch the Equipment ON**, with FS202 basically doing its initialization, while supervising the Stand-by Mode TM (ST1), with its flipping bit at each TM requested.
- 2- **Switch ON the SSR memory stacks.** On the on-ground test-bench we have only two memory stack boards (e.g. 512Mbits), among the 8 memory stack boards which are basically on the flight model for 2Gbits.

- 3- Switch to **Record Mode**, and check that the TM ST1 status confirms the Record Mode.
- 4- Send the bit-stream input (which will be recorded in the SSR memory stack), and check no-error on TM statuses, with good increment of the stack pointer (ST2.0).
- 5- Switch to **Stand-by Mode**, and check that the TM ST1 status confirms the Stand-by Mode, and check no-error on TM statuses.
- 6- Switch to **Dump Mode**, and check the TM ST1 status to confirm the Dump Mode, and check no-error on TM statuses.
- 7- Send the bit-stream output (which were previously recorded in the SSR memory stack), and check no-error on TM statuses, with good stack pointer (ST2.0), and good bit-stream data.
- 8- Switch to **Stand-by Mode**, and check that the TM ST1 status confirms the Stand-by Mode, and check no-error on TM statuses.
- 9- At this step we have confirmed Normal operation working with FS202 Flighth S/W.

### **10.3.2 LOADING OF THE NEW SOFTWARE VERSION ON THE SSR HARDWARE**

- 10- Send the **Scrubbing OFF** Tele-Command, and check no-error on TM statuses, with confirmation of the Scrubbing process inhibition.
- 11- Send the **S/W Patch tele-commands** to **up-load** the **FS203** (or FS204), and check no-error on TM statuses.
- 12- Send the **S/W Patch tele-commands** to **down-load** the **FS203** (or FS204), and check no-error on TM statuses, and that the data patched were well stored inside the CPU-RAM of the SSR Equipment.
- 13- Send the **Scrubbing ON** Tele-Command, and check no-error on TM statuses, with confirmation of the Scrubbing process **re-activation**.
- 14- At this step we have confirmed Normal operation working with FS203 (FS204) Flighth S/W.

One can notice that the memory stacks were let ON during this patch process (which for its part, works well in this configuration.)

But these stacks could be OFF, the major point being to inhibit the scrubbing process before patching, and re-activation of it, on purpose, at the end of the patching.

If the scrubbing process is not inhibited, while patching the FS203 (or FS204), the CPU board could reach a point which raises the “Interrupt 1 Machine error MPE” error protection, conducting to freeze the CPU activity (loop fore-ever, whith a TM status frozen).

*Note : The upper procedure was not re-tested with memory stacks OFF.*

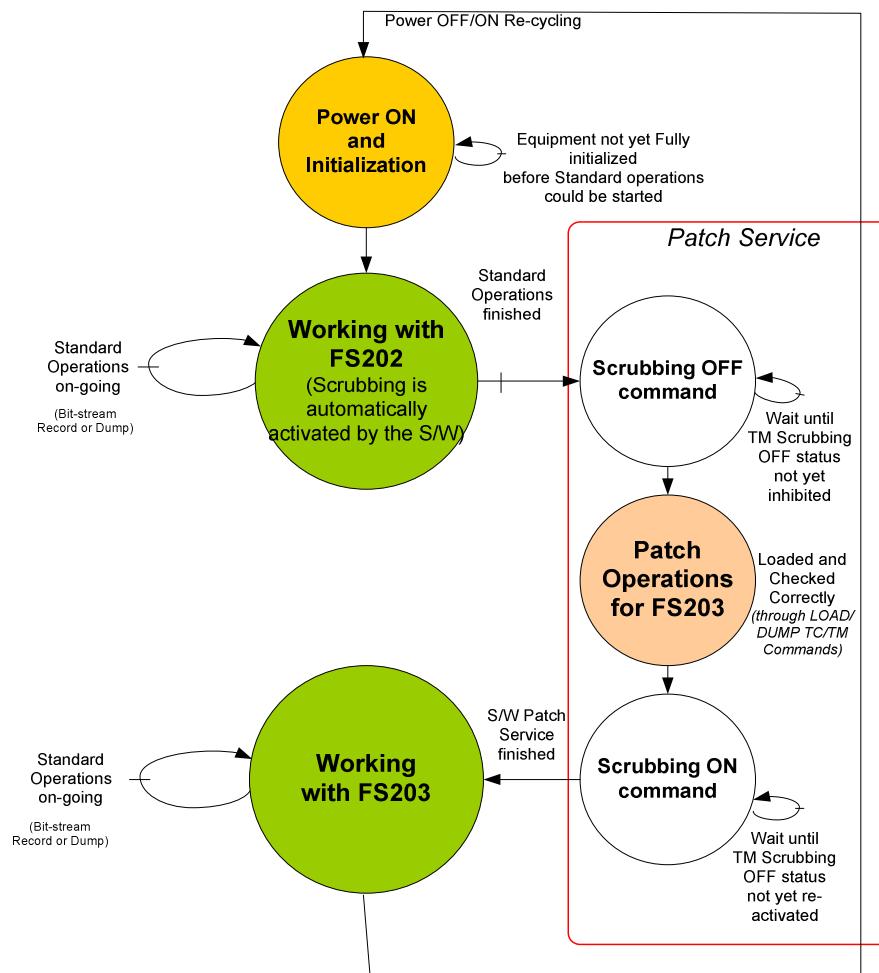


Figure 2 : Patching vs Nomral Operations Flow used for the on-ground SSR Hardware tests

### 10.3.3 SEF AND DEF TESTING

Off-record and complementary HW/SW Validation through physical test on the SSR-SOHO Unit Tester. These tests show that upon SEF or DEF occurrences the patched S/W FS203 is well activated, with coherent reaction on the TM status, and without any blocking on the good running of the on-board S/W.

#### - SEF Test:

- We are basically testing with one injected error-bits in 1, 2, 4 and 7 words inside the memory stack, generating SEF events.
  - This is done with both Scrubbing inhibited first, and then with having it activated.
  - With the in-flight FS202 S/W: 100% (of course) of mainly ST2.1 and ST2.5 TM status present good bits generations in these TM words, with an FS202 patched thanks to the original 'TEDAC' patch test procedure, used for the SSR H/W acceptance tests.
  - With the FS203 (+patch 'TEDAC203') :
    - The ST2.1 and ST2.5 are re-acting with the following bit-fields :
    - 13 bits for SEF
    - 3 bits for DEF

Number of SEF errors injected TM Status	1	2	4	7	Comments
ST2.1	8000	8000	8000	8000	
ST2.5	0008	0010	0020	0038	

This conducts to the bit-field definition:

Bit N#	SEF Field												DEF Field			
	MSB											LSB	MSB		LSB	
ST2.5	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15

Which is in conformance with what was expected from the S/W design patch implementation, according to paragraph 7.2. which presents the structure type of these variables (T\_statistics on DEF\_Counter and SEF\_counter).

#### - DEF Test:

- We are basically testing with two injected error-bits in 1, 2, 4 and 7 words inside the memory stack, generating DEF events.



- This is done with both Scrubbing inhibited first, and then with having it activated.
- With the in-flight FS202 S/W: 100% (of course) of the Standard Equipment Test is correct, with an FS202 patched thanks to the same original 'TEDAC' patch test procedure.
- With the in-flight FS203 S/W: 100% (of course) of the Standard Equipment Test is correct, with an FS202 patched thanks to the same 'TEDAC203' modified patch test procedure, used also for SEF tests. This is normal because of no modification on the DEF bit-field with the new FS203 patch.

#### **10.3.4 CONCLUSION OF THE SSR HARDWARE TESTS**

This HW/SW Validation and complementary test campaign did show no non-conformance on the normal behavior of the Flight S/W FS202 with its additionnal FS203 patch.

We do confirm that for the Patching Procedure the Scrubbing process shall be disabled.

We do confirm that the SEF/DEF modifications behave also properly, limited during the H/W tests to 1, 2, 3 and 7 SEF or DEF errors generated. Nevertheless, the other boundary limits were covered by virtual test on the VAX-VMS TLD Simulator performed by the S/W Team in EADS-Astrium Toulouse (according to paragraph 10.1.2.), with a consequence of having an acceptable validation coverage of the modification made on the flight S/W.

## 11 PATCH DELIVERY

This paragraph gives the exhaustive and ordered list of the words (address and data) to be patched in order to upload the new SSR software version (V203.) The procedure has been explained in §9, especially for the safe code derivation.

**Nota:** for a patch at a given address, there are 4 bytes (2 bytes for the address and 2 bytes for the data): the number of the generated TC files is linked to the number of different data bytes between the FS202 and the FS203, and also to the address of the previous performed patch. When the patch concerns two consecutive addresses, the second set of TC files does not include the address, because the address has been automatically increased (of 1 LSB) at the end of the previous patch. For these reasons, there is only one TC file in some cases, or in other cases, there are 3 TC files, while there are generally 2 TC files for each address.

1. **The SSR SW has to be in Standby mode.** This condition is very important for the next steps, it guarantees that the algorithms to be modified will not be activated by a treatment of the SSR normal work.
2. **The scrubbing process has to be disabled.** This is necessary to avoid an error protection on the CPU board.
3. **Patch the following words at the indicated addresses using the TC commands.** The TC filenames are indicated in the third column.

Address (hexadecimal)	Data (hexadecimal)	Corresponding TC files	Comments
06A1	FFF6	fsm200509010800.005 fsm200509010800.006 fsm200509010800.007	Modification in OMT02
06A3	0008	fsm200509010800.008 fsm200509010800.009	Modification in OMT02
06A8	0009	fsm200509010800.010 fsm200509010800.011	Modification in OMT02
06D1	0008	fsm200509010800.012 fsm200509010800.013	Modification in OMT02
06E3	0008	fsm200509010800.014 fsm200509010800.015	Modification in OMT02
06EB	7A0C	fsm200509010800.016 fsm200509010800.017	Modification in OMT02
06EE	8020	fsm200509010800.018 fsm200509010800.019	Modification in OMT02

<b>Address (hexadecimal)</b>	<b>Data (hexadecimal)</b>	<b>Corresponding TC files</b>	<b>Comments</b>
		fsm200509010800.020	
06EF	0DD1	fsm200509010800.021 fsm200509010800.022	Modification in OMT02
06F0	6122	fsm200509010800.023 fsm200509010800.024	Modification in OMT02
06F1	1300	fsm200509010800.025 fsm200509010800.026	Modification in OMT02
06F2	8530	fsm200509010800.027	Modification in OMT02
06F3	1FFF	fsm200509010800.028	Modification in OMT02
06F4	6522	fsm200509010800.029 fsm200509010800.030 fsm200509010800.031	Modification in OMT02
06F5	9720	fsm200509010800.032 fsm200509010800.033	Modification in OMT02
06F6	0DD1	fsm200509010800.034 fsm200509010800.035	Modification in OMT02
06F7	8111	fsm200509010800.036 fsm200509010800.037	Modification in OMT02
06F8	7A0E	fsm200509010800.038 fsm200509010800.039	Modification in OMT02
06F9	842F	fsm200509010800.040 fsm200509010800.041	Modification in OMT02
06FA	0009	fsm200509010800.042	Modification in OMT02
06FB	4A27	fsm200509010800.043 fsm200509010800.044	Modification in OMT02
06FC	0007	fsm200509010800.045 fsm200509010800.046	Modification in OMT02
06FD	0B01	fsm200509010800.047 fsm200509010800.048	Modification in OMT02
06FE	8020	fsm200509010800.049 fsm200509010800.050	Modification in OMT02
06FF	0DD1	fsm200509010800.051	Modification in OMT02

<b>Address (hexadecimal)</b>	<b>Data (hexadecimal)</b>	<b>Corresponding TC files</b>	<b>Comments</b>
		fsm200509010800.052	
0700	4A27	fsm200509010800.053 fsm200509010800.054	Modification in OMT02
0701	0007	fsm200509010800.055 fsm200509010800.056	Modification in OMT02
0702	1301	fsm200509010800.057 fsm200509010800.058	Modification in OMT02
0703	8236	fsm200509010800.059 fsm200509010800.060	Modification in OMT02
0704	9720	fsm200509010800.061	Modification in OMT02
0705	0DD1	fsm200509010800.062 fsm200509010800.063 fsm200509010800.064	Modification in OMT02
0706	FF00	fsm200509010800.065 fsm200509010800.066	Modification in OMT02
0707	FF00	fsm200509010800.067 fsm200509010800.068	Modification in OMT02
0708	FF00	fsm200509010800.069 fsm200509010800.070	Modification in OMT02
0709	FF00	fsm200509010800.071 fsm200509010800.072	Modification in OMT02
070A	FF00	fsm200509010800.073 fsm200509010800.074	Modification in OMT02
070B	FF00	fsm200509010800.075 fsm200509010800.076	Modification in OMT02
070C	FF00	fsm200509010800.077 fsm200509010800.078	Modification in OMT02
070D	FF00	fsm200509010800.079	Modification in OMT02
070E	FF00	fsm200509010800.080 fsm200509010800.081 fsm200509010800.082	Modification in OMT02
070F	FF00	fsm200509010800.083 fsm200509010800.084	Modification in OMT02

<b>Address (hexadecimal)</b>	<b>Data (hexadecimal)</b>	<b>Corresponding TC files</b>	<b>Comments</b>
0710	FF00	fsm200509010800.085 fsm200509010800.086	Modification in OMT02
0711	FF00	fsm200509010800.087 fsm200509010800.088	Modification in OMT02
0712	FF00	fsm200509010800.089 fsm200509010800.090	Modification in OMT02
0713	FF00	fsm200509010800.091 fsm200509010800.092	Modification in OMT02
0714	FF00	fsm200509010800.093 fsm200509010800.094	Modification in OMT02
0715	FF00	fsm200509010800.095 fsm200509010800.096	Modification in OMT02
0716	FF00	fsm200509010800.097 fsm200509010800.098	Modification in OMT02
0717	FF00	fsm200509010800.099 fsm200509010800.100	Modification in OMT02
0718	FF00	fsm200509010800.101 fsm200509010800.102	Modification in OMT02
0719	FF00	fsm200509010800.103 fsm200509010800.104	Modification in OMT02
071A	FF00	fsm200509010800.105 fsm200509010800.106	Modification in OMT02
071B	FF00	fsm200509010800.107	Modification in OMT02
071C	FF00	fsm200509010800.108 fsm200509010800.109 fsm200509010800.110	Modification in OMT02
071D	FF00	fsm200509010800.111 fsm200509010800.112	Modification in OMT02
071E	FF00	fsm200509010800.113 fsm200509010800.114	Modification in OMT02
071F	FF00	fsm200509010800.115 fsm200509010800.116	Modification in OMT02
0720	FF00	fsm200509010800.117	Modification in OMT02

<b>Address (hexadecimal)</b>	<b>Data (hexadecimal)</b>	<b>Corresponding TC files</b>	<b>Comments</b>
		fsm200509010800.118	
0721	FF00	fsm200509010800.119 fsm200509010800.120	Modification in OMT02
0722	FF00	fsm200509010800.121 fsm200509010800.122	Modification in OMT02
0723	FF00	fsm200509010800.123 fsm200509010800.124	Modification in OMT02
0724	FF00	fsm200509010800.125 fsm200509010800.126	Modification in OMT02
0725	FF00	fsm200509010800.127 fsm200509010800.128	Modification in OMT02
0726	FF00	fsm200509010800.129 fsm200509010800.130	Modification in OMT02
072E	000A	fsm200509010800.131 fsm200509010800.132	Modification in OMT02
Dump and verification of the patches			
1010	94F0	fsm200509010800.221 fsm200509010800.222 fsm200509010800.223	New algorithm PEI02
1011	0E49	fsm200509010800.224 fsm200509010800.225	New algorithm PEI02
1012	80F0	fsm200509010800.226 fsm200509010800.227	New algorithm PEI02
1013	0E49	fsm200509010800.228 fsm200509010800.229	New algorithm PEI02
1014	99EF	fsm200509010800.230 fsm200509010800.231	New algorithm PEI02
1015	0001	fsm200509010800.232 fsm200509010800.233	New algorithm PEI02
1016	810F	fsm200509010800.234 fsm200509010800.235	New algorithm PEI02
1017	84F0	fsm200509010800.236 fsm200509010800.237	New algorithm PEI02

<b>Address (hexadecimal)</b>	<b>Data (hexadecimal)</b>	<b>Corresponding TC files</b>	<b>Comments</b>
1018	0E49	fsm200509010800.238 fsm200509010800.239	New algorithm PEI02
1019	A20F	fsm200509010800.240 fsm200509010800.241	New algorithm PEI02
101A	8213	fsm200509010800.242 fsm200509010800.243	New algorithm PEI02
101B	8520	fsm200509010800.244 fsm200509010800.245	New algorithm PEI02
101C	0DE1	fsm200509010800.246 fsm200509010800.247	New algorithm PEI02
101D	9302	fsm200509010800.248 fsm200509010800.249	New algorithm PEI02
101E	9000	fsm200509010800.250 fsm200509010800.251	New algorithm PEI02
101F	0E49	fsm200509010800.252 fsm200509010800.253	New algorithm PEI02
1020	8231	fsm200509010800.254 fsm200509010800.255	New algorithm PEI02
1021	4A0A	fsm200509010800.256 fsm200509010800.257	New algorithm PEI02
1022	0E49	fsm200509010800.258 fsm200509010800.259	New algorithm PEI02
1023	7060	fsm200509010800.260 fsm200509010800.261	New algorithm PEI02
1024	0CA7	fsm200509010800.262 fsm200509010800.263	New algorithm PEI02
1025	F030	fsm200509010800.264 fsm200509010800.265	New algorithm PEI02
1026	0DE4	fsm200509010800.266 fsm200509010800.267	New algorithm PEI02
1027	7060	fsm200509010800.268 fsm200509010800.269	New algorithm PEI02
1028	0C99	fsm200509010800.270	New algorithm PEI02

<b>Address (hexadecimal)</b>	<b>Data (hexadecimal)</b>	<b>Corresponding TC files</b>	<b>Comments</b>
		fsm200509010800.271	
1029	9030	fsm200509010800.272 fsm200509010800.273	New algorithm PEI02
102A	0DE4	fsm200509010800.274 fsm200509010800.275	New algorithm PEI02
102B	4800	fsm200509010800.276 fsm200509010800.277	New algorithm PEI02
102C	A000	fsm200509010800.278 fsm200509010800.279	New algorithm PEI02
102D	5110	fsm200509010800.280 fsm200509010800.281	New algorithm PEI02
102E	8211	fsm200509010800.282 fsm200509010800.283	New algorithm PEI02
102F	4810	fsm200509010800.284 fsm200509010800.285	New algorithm PEI02
1030	2004	fsm200509010800.286 fsm200509010800.287	New algorithm PEI02
1031	4810	fsm200509010800.288 fsm200509010800.289	New algorithm PEI02
1032	2002	fsm200509010800.290 fsm200509010800.291	New algorithm PEI02
1033	4800	fsm200509010800.292 fsm200509010800.293	New algorithm PEI02
1034	2000	fsm200509010800.294 fsm200509010800.295	New algorithm PEI02
1035	7EF0	fsm200509010800.296 fsm200509010800.297	New algorithm PEI02
1036	0070	fsm200509010800.298 fsm200509010800.299	New algorithm PEI02
1037	7070	fsm200509010800.300 fsm200509010800.301	New algorithm PEI02
1038	0CC3	fsm200509010800.302 fsm200509010800.303	New algorithm PEI02

<b>Address (hexadecimal)</b>	<b>Data (hexadecimal)</b>	<b>Corresponding TC files</b>	<b>Comments</b>
Dump and verification of the patches			
1000	8510	fsm200509010800.211 fsm200509010800.212 fsm200509010800.213 fsm200509010800.214	Instructions for OMU03 (“Branch” operation)
1001	1010	fsm200509010800.215 fsm200509010800.216	Instructions for OMU03 (“Branch” operation)
1002	9010	fsm200509010800.217 fsm200509010800.218	Instructions for OMU03 (“Branch” operation)
1003	0048	fsm200509010800.219 fsm200509010800.220	Instructions for OMU03 (“Branch” operation)
Dump and verification of the patches			
1FFC	CBCB	fsm200509010800.304 fsm200509010800.305 fsm200509010800.306 fsm200509010800.307	SW version (V203)
1FFE	148D	fsm200509010800.308 fsm200509010800.309	ROM checksum MSB
1FFF	29BA	fsm200509010800.310 fsm200509010800.311	ROM checksum LSB
Dump and verification of the patches			

When these patches have been executed and verified, the algorithms OMT02 is modified and ready to be used, while the new algorithm PEI02 is just modified but not in use.

**Nota:** some delivered TC files are not used (not listed above) because the old algorithm PEI02 is not erased in the memory. If it is necessary to erase this unused algorithm (*only after execution of the next steps which perform the code derivation*), the TC files fsm200509010800.133 to fsm200509010800.210 should be uploaded (in ascending order).

4. **The next step is to activate the SW Branch function** using the dedicated TC command (see User Manual ref RD10.) When this is done (wait 10 ms), the code derivation in the IT table has been performed.
5. **Verify that the data is 0x1010 at the address 0x0048.**
6. To leave the memory in a suitable state, it is recommended to **remove the code instructions in the software Branch function and to replace them by NOP instructions** as it was before.

<b>Address (hexadecimal)</b>	<b>Data (hexadecimal)</b>	<b>Comments</b>
1000	FF00	NOP instruction in OMU03
1001	FF00	NOP instruction in OMU03
1002	FF00	NOP instruction in OMU03
1003	FF00	NOP instruction in OMU03
Dump and verification of the patches		

**Nota:** there are no corresponding TC files to erase the operation OMU03, these TC will be built by the operator himself.

## 12 CONCLUSION

The FS203 SW version of the SSR is consistent with the CCN7 coming from the GSFC. The initial activities schedule has been very nearly respected and the delivery is performed on 2005 September, 13.

Some difficulties have been encountered with the tools and methods of development. Taking advantage of this development, the maintenance manual has been updated with detailed procedures, particularly for the tests phase.

The patch sequence (§11) has been specifically developed to allow a safe upload of the FS203 SW, while the in-flight SW will be in Standby mode and the scrubbing process disabled. This point is very important for the safety of the SSR equipment.

## 13 APPENDIXES

The next paragraphs give details on the tests executed for the SSR SOHO SW version.

### 13.1 CODE ANALYSIS FOR IT2 MANAGEMENT

The new algorithm PEI02 (modified for FS203) is listed below:

```

PEI02      EQU      *      ;      -- save IT context
; save R15 in the IT stack
STI      R15,VGEI_IT_Stack_Pointer
; R15 := IT Stack Pointer
L       R15,VGEI_IT_Stack_Pointer
; save R0 .. R14 in the stack
STM     14,1,R15      ;
; R0 := R15 : IT_Stack_Pointer
LR      R0,R15      ;
; R15 := SP      ;
LI      R15,VGEI_IT_Stack_Pointer
; IT Stack Pointer is incremented by 16
AISP    R0,16      ;
; R1 := size of (Linkage_Vector + Current_IT)
LISP    R1,4      ;
; R2 := address of (Linkage_Vector + Current_IT)
LIM     R2,VGEI_Link_Vect
; save in the stack (Linkage_Vector + Current_IT)
MOV     R0,R2      ;
; save new IT stack pointer (incremented by 4)
ST      R0,VGEI_IT_Stack_Pointer
; R3 := IT_Number (2)
LISP    R3,2      ;
; compare IT stack pointer with stack head
CIM     R0,VGEI_IT_Stack+KGEI_IT_Stack_Size
; if necessary jump to the IT Stack overflow treatment
JC      GE,IEI02      ;
; compare it number with Current_IT
C      R3,VGEI_Current_IT
; if necessary jump to the illegal IT treatment
JC      GE,IEI01      ;
; save new current IT
ST      R3,VGEI_Current_IT
; read IT mask      ;
XIO    R0,RMK      ;
; set bit 1 (IT 1 authorization)
SBR    1,R0      ;
;      -- Clear bit 2 of the Pending Interrupt Register
; no of interrupt to reset
LISP    R1,2      ;
;Clear bit 2 of the Pending Interrupt Register
XIO    R1,RP1      ;
; authorize IT      ;
XIO    R1,ENBL      ;
; write new IT mask      ;
XIO    R0,SMK      ;
$$NM   SET    "PEI02"      ;
$$NL   SET    "A"      ;
;      <<Modes . End_Dump_Record_Request;>>      -- OAM01
MCALL  OAM01      ;
;      -- restore IT context
; activation d'IEI05 (IT context restoring) by Jump
JC      ALL,IEI05      ;
;
;      ENDCODE
;      don't use macro MENDS
PEI02_END    EQU      *-1

```

Due to the presence of several “JC” assembler instructions (conditional jump to a subprogram) in the operation PEI02, it is not possible to perform a unit test on this operation.

In a traditional design, the call to a procedure or subprogram is performed using a specific macro-command MCALL which saves the processor context in the memory stack and enables like this the return from the subprogram to the calling procedure.

In the present case, the call to the subprogram using the “JC” instruction does not allow a return to the calling procedure PEI02. This is the reason why it is not possible to design a unit test on a such operation.

The analysis of the modified PEI02 operation leads to the following report:

- Except for the 3 “JC” jumps, the structure of the algorithm is linear and does not include any internal loop.
- The first 2 “JC” jumps executed before the forced clearing of the IT2 in the PI register make a call to operations for the treatment of “illegal IT” or “IT stack overflow” (respectively IEI01 and IEI02.) In the both cases, the operations IEI01 and IEI02 enter in an infinite loop after sending the error code in the TM channel. The infinite loop will then lead to the CPU reset by the watchdog.
- The third “JC” jump is performed after the forced clearing of the IT2 in the PI register and is a call to the “IT context restoring” procedure.
- The introduced modifications do not impact the general behaviour of the algorithm.
- The used R1 register is not dangerously over written: the inserted instructions have been inserted before the use of the R1 register for the next processing.

The above analysis leads to the conclusion that the new PEI02 algorithm is safe and will improve the SSR SW behaviour since it performs a patch for the IT2 management of the MAS281 processor.



## SSR SOHO

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### 13.2 RFG\_MD003

<b>REPORT NB :</b> RFG_MD003 1	<b>REPORT DATE :</b> 22-JUL-05
FUNCTIONAL OR VALIDATION TEST EXECUTION REPORT	
Continue Dump	
Manual / Automatical : A	
Used Software Version : FS203	
Test Responsible : V.MALLEVILLE	
Test Plan Identification :	
DOC_EFG 2 Rev 2	
Test Procedure Identification : RFG_MD003	
<b>TESTS CASES COVERED BY THE PROCEDURE :</b>	
EFG_MD030 Continue Dump at begin of stack	
EFG_MD031 Continue Dump on two pages - Selection 1	
EFG_MD032 Continue Dump on two pages - Selection 0	
EFG_MD033 Continue Dump on one page	
EFG_MD035 Continue Dump on two pages - with page skip	
EFG_MD036 Continue Dump with skipped pages at begin of stack	
EFG_MD037 Continue Dump - standby command executing	
<b>IDENTIFIED DIFFERENCES WITH TEST PLAN CASES :</b>	
<b>TEST PROCEDURE STATUS :</b> OK	
<b>TEST INITIAL CONDITIONS :</b>	
FS203 context, after initialization in Standby mode (all units ON).	
Starting Execution Date and hour : 8-JUN-05 17h	
Total execution time : 10mn	
Defect numbers found during execution : 0 (For each defect, a defect sheet shall be filled).	

**JUSTIFICATION DOCUMENTS :**

- sequence execution listing,
- input (HW Units Status, DEF/SEF counters) files,
- commands output file,
- telemetry file.

**TEST EXECUTION SYNTHESIS :**

- context is loaded,- initial parameters values are verified,
- the 7 sequences are performed : IT 2 is sent 7 times and after each IT handling completion, a TM request is sent.

**TEST RESULTS SYNTHESIS :**

Results of the 7 sequences :

- Continue Dump at begin of stack : OK.
- Continue Dump on two pages - selection 1 : OK.
- Continue Dump on two pages - selection 0 : OK.
- Continue Dump on one page : OK.
- Continue Dump on two pages with page skip : OK.
- Continue Dump with skipped page at begin of stack : OK.
- Continue Dump - standby command executing : OK.

For each sequence, whole verifications were performed successfully :

- update of pointer, channel in local and TM parameters.
- update of next pointer, begin/end of stack detection, register selection in local parameters.
- update of the mode in local and TM parameters.
- HW commands are sent correctly and in the right order.

**CONCLUSION ON THE TEST AND ACTIONS :****13.2.1 SEQUENCE EXECUTION LISTING**

Log file started

TLD Ada Symbolic Debugger TLDdbg VAX/1750A V-3.2.3 25-JUL-2005 17:58:33  
(c) TLD Systems, Ltd., 1993



## SSR SOHO

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```
1=> !
1=> ! @context_init.cmd
2=> ! attach tldmps 1750a
MPS: TLD 1750A Multiple Processor Simulator  TLDmps  V-1.5.1
MPS: (c) TLD Systems, Ltd., 1993
2=> !
2=> ! restore context_FS203
Loading at 16#00000#
Loading at 16#005DC#
Loading at 16#00BB8#
Loading at 16#01194#
Loading at 16#01770#
Loading at 16#01D4C#
Loading at 16#02328#
Loading at 16#02904#
Loading at 16#02EE0#
Loading at 16#034BC#
Loading at 16#03A98#
Loading at 16#04074#
Loading at 16#04650#
Loading at 16#04C2C#
Loading at 16#05208#
Loading at 16#057E4#
Loading at 16#05DC0#
Loading at 16#0639C#
Loading at 16#06978#
Loading at 16#06F54#
Loading at 16#07530#
Loading at 16#07B0C#
Loading at 16#080E8#
Loading at 16#086C4#
Loading at 16#08CA0#
Loading at 16#0927C#
Loading at 16#09858#
Loading at 16#09E34#
Loading at 16#0A410#
Loading at 16#0A9EC#
Loading at 16#0AFC8#
Loading at 16#0B5A4#
Loading at 16#0BB80#
Loading at 16#0C15C#
Loading at 16#0C738#
Loading at 16#0CD14#
Loading at 16#0D2F0#
Loading at 16#0D8CC#
Loading at 16#0DEA8#
Loading at 16#0E484#
Loading at 16#0EA60#
Loading at 16#0F03C#
Loading at 16#0F618#
Loading at 16#0FBF4#
Loading MMUSOHO.trb
Loading MMUSOHO.dbg
Breakpoint 1 at GES_SET_PU/JSECT ( 16#0000# )
Action: HALT execution
Breakpoint already set at location.
2=> !
2=> ! e /hex GES_SET_PU . VPES_ROM_Checksum_LSB
16#1FFF#: 16#29BA#
2=> ! e /hex GES_SET_PU . VPES_ROM_Checksum
16#1FFE#: 16#148D#
2=> !
2=> ! e /hex GES_SET_PU . VPES_Software_Ident_1
16#1FFC#: 16#CBCB#
2=> ! e /hex GES_SET_PU . VPES_Software_Ident_2
16#1FFD#: 16#101#
2=> !
2=> ! SPECIAL MPSSCONNECT PROGRAMMED INPUT 256 port100.in
2=> ! SPECIAL MPSSCONNECT PROGRAMMED INPUT 272 port110.in
2=> ! SPECIAL MPSSCONNECT PROGRAMMED INPUT 304 port130.in
2=> ! SPECIAL MPSSCONNECT PROGRAMMED INPUT 312 port138.in
2=> ! SPECIAL MPSSCONNECT PROGRAMMED INPUT 376 port178.in
2=> ! SPECIAL MPSSCONNECT PROGRAMMED OUTPUT 256 port100.out
2=> ! SPECIAL MPSSCONNECT PROGRAMMED OUTPUT 336 port150.out
2=> ! SPECIAL MPSSCONNECT PROGRAMMED OUTPUT 352 port160.out
2=> ! SPECIAL MPSSCONNECT PROGRAMMED OUTPUT 360 port168.out
```

```

2=> ! SPECIAL MPS$CONNECT PROGRAMMED OUTPUT 288 port120.out
2=> ! SPECIAL MPS$CONNECT PROGRAMMED OUTPUT 289 port121.out
2=> ! SPECIAL MPS$CONNECT PROGRAMMED OUTPUT 290 port122.out
2=> ! SPECIAL MPS$CONNECT PROGRAMMED OUTPUT 291 port123.out
2=> ! SPECIAL MPS$CONNECT PROGRAMMED OUTPUT 292 port124.out
2=> ! SPECIAL MPS$CONNECT PROGRAMMED OUTPUT 293 port125.out
2=> ! SPECIAL MPS$CONNECT PROGRAMMED OUTPUT 294 port126.out
2=> ! SPECIAL MPS$CONNECT PROGRAMMED OUTPUT 295 port127.out
2=> ! SPECIAL MPS$CONNECT PROGRAMMED OUTPUT 296 port128.out
2=> ! SPECIAL MPS$CONNECT PROGRAMMED OUTPUT 344 port158.out
2=> ! SPECIAL MPS$CONNECT PROGRAMMED OUTPUT 320 port140.out
2=> ! SPECIAL MPS$CONNECT PROGRAMMED OUTPUT 328 port148.out
2=> ! SPECIAL MPS$CONNECT PROGRAMMED OUTPUT 392 port188.out
2=> ! SPECIAL MPS$CONNECT PROGRAMMED OUTPUT 544 port220.out
2=> ! SPECIAL MPS$CONNECT PROGRAMMED OUTPUT 384 port180.out
2=> !
2=> ! set event /io/continue 16#180#
2=> ! set event /io/continue 16#220#
2=> ! set event /io/continue 16#188#
2=> ! set event /io/continue 16#148#
2=> ! set event /io/continue 16#140#
2=> ! set event /io/continue 16#158#
2=> ! set event /io/continue 16#128#
2=> ! set event /io/continue 16#120#
2=> ! set event /io/continue 16#168#
2=> ! set event /io/continue 16#160#
2=> ! set event /io/continue 16#150#
2=> ! set event /io/continue 16#100#
2=> !
2=> ! set event /io/continue 16#8100#
2=> ! set event /io/continue 16#8110#
2=> ! set event /io/continue 16#8130#
2=> ! set event /io/continue 16#8138#
2=> ! set event /io/continue 16#8178#
2=> !
2=> !
2=> ! set break GEI_IT . PEI01
Breakpoint 2 at GEI_IT.PEI01 ( 16#0BF8# )
Action: HALT execution
2=> ! set break GEI_IT . PEI02
Breakpoint 3 at GEI_IT.PEI02 ( 16#1010# )
Action: HALT execution
2=> ! set break GEI_IT . PEI03
Breakpoint 4 at GEI_IT.PEI03 ( 16#0C27# )
Action: HALT execution
2=> ! set break GEI_IT . PEI04
Breakpoint 5 at GEI_IT.PEI04 ( 16#0C4D# )
Action: HALT execution
2=> ! set break GEI_IT . PEI05
Breakpoint 6 at GEI_IT.PEI05 ( 16#0C73# )
Action: HALT execution
2=> !
2=> ! set break GEI_IT . IEI05_END - 2
Breakpoint 7 at GEI_IT.IEI05_END-2 ( 16#0CDA# )
Action: HALT execution
1=> !
1=> ! m /type=def_global_gen.T_Word dump_record_DMA . Register_Selection := 0
1=> ! m /type=def_global_gen.T_Word dump_record_DMA . next_pointer := 0
1=> ! m /type=def_global_gen.T_Word dump_record_DMA . Current_physical_unit := 0
1=> ! m /type=def_global_gen.T_Word dump_record_DMA . Next_physical_unit := 0
1=> ! @print_dump_rec_param.cmd
2=> ! e modes . mode
( 16#0DA8# ) MODES.MODE: KG_MODE_STANDBY
2=> ! e dump_record_DMA . Begin_Of_Stack_Detection
( 16#0DD6# ) DUMP_RECORD_DMA.BEGIN_OF_STACK_DETECTION: KG_NO
2=> ! e dump_record_DMA . End_Of_Stack_Detection
( 16#0DD7# ) DUMP_RECORD_DMA.END_OF_STACK_DETECTION: KG_NO
2=> ! e dump_record_DMA . Standby_Exec_Status
( 16#0DD9# ) DUMP_RECORD_DMA.STANDBY_EXEC_STATUS: KG_NO_EXEC
2=> ! e /hex dump_record_DMA . Current_Pointer
16#0DD2#: 16#0#
2=> ! e /hex dump_record_DMA . Current_physical_unit
16#0DD3#: 16#0#
2=> ! e /hex dump_record_DMA . Next_Pointer
16#0DD4#: 16#0#
2=> ! e /hex dump_record_DMA . Next_physical_unit
16#0DD5#: 16#0#

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2=> ! e dump_record_DMA . register_Selection
( 16#0DD8# ) DUMP_RECORD_DMA.REGISTER_SELECTION: KG_REG_0
2=> ! e /hex statistics . statistics_table
16#0DCD#: 16#0#
16#0DCE#: 16#0#
16#0DCF#: 16#0#
16#0DD0#: 16#0#
16#0DD1#: 16#0#
2=> ! e memory_units.Corresponding_Table
( 16#0DB6# ) MEMORY_UNITS.CORRESPONDING_TABLE:
( 0 => 0,           1 => 1,           2 => 2,           3 => 3,
  4 => 4,           5 => 5,           6 => 6,           7 => 7,
  8 => 8,           9 => 9,           10 => 10,          11 => 11,
  12 => 12,          13 => 13,          14 => 14,          15 => 15 )
2=> !
2=> ! e /type=tm_parameters.T_ST1 tm_parameters.tm_Buffer (0)
( 16#0DAC# ) TM_PARAMETERS.T_ST1:
  MODE => KG_MODE_STANDBY
  TUGGLE_BIT => 0
  PROTECTION_STATUS => KG_PROTECTION_ENABLED
  SCRUBBING_STATUS => KG_SCRUBBING_ENABLED
  SCRUBBING_BANK => 0
  CHANNEL => KG_CHANNEL_1
  TM_MODE => KG_TM_MODE_NORMAL
  TC_MODE => KG_TC_MODE_NORMAL
  OPERATIONAL_ERROR_STATUS => KG_NORMAL
2=> ! e /type=tm_parameters.T_ST2_0 tm_parameters.tm_Buffer (1)
( 16#0DAD# ) TM_PARAMETERS.T_ST2_0:
  PHYSICAL_UNIT => 0
  LOGICAL_POINTER => 0
2=> ! e /hex tm_parameters.tm_buffer
16#0DAC#: 16#2000#
16#0DAD#: 16#0#
16#0DAE#: 16#0#
16#0DAF#: 16#0#
16#0DB0#: 16#0#
16#0DB1#: 16#0#
16#0DB2#: 16#0#
16#0DB3#: 16#0#
16#0DB4#: 16#0#
1=> ! @TM_Request.cmd
2=> ! m /hex \pi := 0010
%TLDBG-E-TASKSYM - Task symbol \SCHEDULER.CURRENT_TASK\ not found in symbol table
Proc 1 HALTED Inst Count:*801860 Clock:*0.992_004_1
R0: *60B0 0000 *0160 0000 *03E0 *1FF7 *0000 *0000 IC: *00EF MK: *60B0 SW: *4000
R8: *0000 0000 *0000 0000 *0000 *0000 *0000 *1FFA PI: *0010 SU: *0 TSK: *0000
2=> ! go /wait
%TLDBG-E-TASKSYM - Task symbol \SCHEDULER.CURRENT_TASK\ not found in symbol table
Proc 1 HALTED Inst Count:*801861 Clock:*0.992_005_3
R0: 60B0 0000 0160 0000 03E0 1FF7 0000 0000 IC: *0C73 MK: *20A0 SW: *0000
R8: 0000 0000 0000 0000 0000 0000 1FF8 PI: *0000 SU: 0 TSK: 0000
BP taken at GEI_IT/ISELECT1+16#4C#: STI R15,16#E49#
2=> ! go /wait
IO Event: 16#8100#
IO Event occurred at INPUT_OUTPUT.READ_IO_REGISTER._28: XIO R2,16#0#,R4 (PI)
IO Event: 16#120#
IO Event occurred at INPUT_OUTPUT.WRITE_IO_REGISTER._35: XIO R4,16#0#,R2 (PO)
IO Event: 16#128#
IO Event occurred at INPUT_OUTPUT.WRITE_IO_REGISTER._35: XIO R4,16#0#,R2 (PO)
%TLDBG-E-TASKSYM - Task symbol \SCHEDULER.CURRENT_TASK\ not found in symbol table
Proc 1 HALTED Inst Count:*802117 Clock:*0.992_657_35
R0: 60B0 0000 0160 0000 03E0 1FF7 0000 0000 IC: *0CDA MK: *0000 SW: *4000
R8: 0000 0000 0000 0000 0000 0000 1FF8 PI: 0000 SU: 0 TSK: 0000
BP taken at GEI_IT/ISELECT1+16#B3#: LST 16#DE1#
2=> ! go/wait=2
2=> ! halt
%TLDBG-E-TASKSYM - Task symbol \SCHEDULER.CURRENT_TASK\ not found in symbol table
Proc 1 HALTED Inst Count:*824517 Clock: *1.023_628_85
R0: 60B0 0000 *0000 *0460 03E0 1FF7 0000 0000 IC: *011C MK: *60B0 SW: 4000
R8: 0000 0000 0000 0000 0000 *7FFF 0000 1FF8 PI: 0000 SU: 0 TSK: 0000
Halted at MODES.BACKGROUND_TASK_ACTIVATION._137+16#2#: BR
MODES.BACKGROUND_TASK_ACTIVATION._123
1=> !
1=> !
1=> !
1=> !
1=> ! @init_delay_B.cmd

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2=> ! set break delays.wait_delay_B
Breakpoint 8 at DELAYS.WAIT_DELAY_B ( 16#0310# )
    Action: HALT execution
2=> ! set break delays.wait_delay_B'end
Breakpoint 9 at DELAYS.WAIT_DELAY_B'END ( 16#032A# )
    Action: HALT execution
1=> ! m modes . mode := KG_Mode_Dump
1=> ! m /type=tm_parameters.T_ST1 tm_parameters.tm_buffer (0) := (Mode => KG_Mode_Dump)
1=> ! m /hex tm_parameters.tm_Buffer (1) := F000
1=> ! m /hex dump_record_DMA . Current_pointer := 000
1=> ! m /hex dump_record_DMA . next_pointer := AAA
1=> ! m /hex dump_record_DMA . Current_physical_unit := F
1=> ! m /hex dump_record_DMA . Next_physical_unit := A
1=> ! m dump_record_DMA . Begin_Of_Stack_Detection := KG_YES
1=> ! m dump_record_DMA . Register_Selection := KG_REG_0
1=> ! m /hex statistics . statistics_Table (0) := 0000
1=> ! m /hex statistics . statistics_Table (1) := 0000
1=> ! m /hex statistics . statistics_Table (2) := 0000
1=> ! m /hex statistics . statistics_Table (3) := 0000
1=> ! m /hex statistics . statistics_Table (4) := 1235
1=> !
1=> ! @Receive_End_Dump_Record_IT.cmd
2=> ! m /hex \pi := 2000
%TLDBG-E-TASKSYM - Task symbol \SCEDULER.CURRENT_TASK\ not found in symbol table
Proc 1 HALTED Inst Count: 824517 Clock: 1.023_628_85
R0: 60B0 0000 0000 0460 03E0 1FF7 0000 0000 IC: 011C MK: 60B0 SW: 4000
R8: 0000 0000 0000 0000 0000 7FFF 0000 1FF8 PI: *2000 SU: 0 TSK: 0000
2=> ! go /wait
%TLDBG-E-TASKSYM - Task symbol \SCEDULER.CURRENT_TASK\ not found in symbol table
Proc 1 HALTED Inst Count: *824518 Clock: *1.023_630_35
R0: 60B0 0000 0000 0460 03E0 1FF7 0000 0000 IC: *1010 MK: *0000 SW: *0000
R8: 0000 0000 0000 0000 0000 7FFF 0000 1FF8 PI: *0000 SU: 0 TSK: 0000
BP taken at GEI_IT/ISELECTM1: STI R15,16#E49#
1=> ! set break modes . end_dump_record_request'end
Breakpoint 10 at MODES.END_DUMP_RECORD_REQUEST'END ( 16#008C# )
    Action: HALT execution
1=> ! go /wait
IO Event: 16#8130#
IO Event occurred at INPUT_OUTPUT.READ_IO_REGISTER._28: XIO R2,16#0#,R4 (PI)
%TLDBG-E-TASKSYM - Task symbol \SCEDULER.CURRENT_TASK\ not found in symbol table
Proc 1 HALTED Inst Count: *824744 Clock: *1.023_973_95
R0: *0007 *0004 0000 *0064 *1FEC 1FF7 0000 0000 IC: *0310 MK: *4000 SW: *4000
R8: 0000 0000 *0007 *1235 *0002 *0001 *0001 *1FE9 PI: 0000 SU: 0 TSK: 0000
BP taken at DELAYS.WAIT_DELAY_B._30: LIM R15,16#FFFE#,R15
1=> ! @Verify_Delay_B.cmd
2=> ! step
%TLDBG-E-TASKSYM - Task symbol \SCEDULER.CURRENT_TASK\ not found in symbol table
Proc 1 HALTED Inst Count: *824746 Clock: *1.023_976_7
R0: 0007 0004 0000 0064 1FEC 1FF7 0000 0000 IC: *0314 MK: 4000 SW: 4000
R8: 0000 0000 0007 1235 0002 0001 0001 *1FE7 PI: 0000 SU: 0 TSK: 0000
Stepped to DELAYS.WAIT_DELAY_B._33: XORR R2,R2
2=> ! step
%TLDBG-E-TASKSYM - Task symbol \SCEDULER.CURRENT_TASK\ not found in symbol table
Proc 1 HALTED Inst Count: *824747 Clock: *1.023_977_2
R0: 0007 0004 0000 0064 1FEC 1FF7 0000 0000 IC: *0315 MK: 4000 SW: *2000
R8: 0000 0000 0007 1235 0002 0001 0001 1FE7 PI: 0000 SU: 0 TSK: 0000
Stepped to DELAYS.WAIT_DELAY_B._34: XIO R2,OTB
2=> ! step
%TLDBG-E-TASKSYM - Task symbol \SCEDULER.CURRENT_TASK\ not found in symbol table
Proc 1 HALTED Inst Count: *824748 Clock: *1.023_977_45
R0: 0007 0004 0000 0064 1FEC 1FF7 0000 0000 IC: *0317 MK: 4000 SW: 2000
R8: 0000 0000 0007 1235 0002 0001 0001 1FE7 PI: 0000 SU: 0 TSK: 0000
Stepped to DELAYS.WAIT_DELAY_B._35: XIO R2,ITB
2=> ! go /wait
%TLDBG-E-TASKSYM - Task symbol \SCEDULER.CURRENT_TASK\ not found in symbol table
Proc 1 HALTED Inst Count: *825078 Clock: *1.025_063_45
R0: 0007 0004 0000 *000A 1FEC 1FF7 0000 0000 IC: *032A MK: 4000 SW: 2000
R8: 0000 0000 0007 1235 *0000 *000A 0001 1FE7 PI: 0000 SU: 0 TSK: 0000
BP taken at DELAYS.WAIT_DELAY_B._42: LIM R15,16#2#,R15
2=> ! e /hex \tb
TB: 16#A#
1=> ! go /wait
IO Event: 16#158#
IO Event occurred at INPUT_OUTPUT.WRITE_IO_REGISTER._35: XIO R4,16#0#,R2 (PO)
%TLDBG-E-TASKSYM - Task symbol \SCEDULER.CURRENT_TASK\ not found in symbol table
Proc 1 HALTED Inst Count: *825111 Clock: *1.025_137_4
R0: 0007 0004 0000 *2000 *E000 1FF7 0000 0000 IC: *008C MK: 4000 SW: *4000

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R8: 0000 0000 0007 1235 0000 000A 0001 *1FF4 PI: 0000 SU: 0 TSK: 0000
BP taken at MODES.END_DUMP_RECORD_REQUEST._54: LIM R15,16#3#,R15
1=> !
1=> ! e modes.end_dump_record_request.completion_Status
( 16#0.1FF40# ) MODES.END_DUMP_RECORD_REQUEST.COMPLETION_STATUS: KG_COMPLETED
1=> ! go /wait
%TLDBG-E-TASKSYM - Task symbol \SCEDULER.CURRENT_TASK\ not found in symbol table
Proc 1 HALTED Inst Count:*825129 Clock:*1.025_175_6
R0: *60B0 *0000 0000 *0460 *03E0 1FF7 0000 0000 IC:*0CDA MK:*0000 SW: 4000
R8: 0000 0000 *0000 0000 *7FFF *0000 *1FF8 PI: 0000 SU: 0 TSK: 0000
BP taken at GEI_IT/ISECT1+16#B3#: LST 16#DE1#
1=> !
1=> ! go /wait=2
1=> ! halt
%TLDBG-E-TASKSYM - Task symbol \SCEDULER.CURRENT_TASK\ not found in symbol table
Proc 1 HALTED Inst Count:*845129 Clock:*1.052_829_1
R0: 60B0 0000 0000 *0848 03E0 1FF7 0000 0000 IC:*011C MK:*60B0 SW: 4000
R8: 0000 0000 0000 0000 7FFF 0000 1FF8 PI: 0000 SU: 0 TSK: 0000
Halted at MODES.BACKGROUND_TASK_ACTIVATION._137+16#2#: BR
MODES.BACKGROUND_TASK_ACTIVATION._123
1=> ! @print_dump_rec_param.cmd
2=> ! e modes . mode
( 16#0DA8# ) MODES.MODE: KG_MODE_STANDBY
2=> ! e dump_record_DMA . Begin_Of_Stack_Detection
( 16#0DD6# ) DUMP_RECORD_DMA.BEGIN_OF_STACK_DETECTION: KG_YES
2=> ! e dump_record_DMA . End_Of_Stack_Detection
( 16#0DD7# ) DUMP_RECORD_DMA.END_OF_STACK_DETECTION: KG_NO
2=> ! e dump_record_DMA . Standby_Exec_Status
( 16#0DD9# ) DUMP_RECORD_DMA.STANDBY_EXEC_STATUS: KG_NO_EXEC
2=> ! e /hex dump_record_DMA . Current_Pointer
16#0DD2#: 16#0#
2=> ! e /hex dump_record_DMA . Current_physical_unit
16#0DD3#: 16#F#
2=> ! e /hex dump_record_DMA . Next_Pointer
16#0DD4#: 16#AAA#
2=> ! e /hex dump_record_DMA . Next_physical_unit
16#0DD5#: 16#A#
2=> ! e dump_record_DMA . register_Selection
( 16#0DD8# ) DUMP_RECORD_DMA.REGISTER_SELECTION: KG_REG_0
2=> ! e /hex statistics . statistics_table
16#0DCD#: 16#0#
16#0DCE#: 16#0#
16#0DCF#: 16#0#
16#0DD0#: 16#2#
16#0DD1#: 16#1235#
2=> ! e memory_units.Corresponding_Table
( 16#0DB6# ) MEMORY_UNITS.CORRESPONDING_TABLE:
( 0 => 0, 1 => 1, 2 => 2, 3 => 3,
  4 => 4, 5 => 5, 6 => 6, 7 => 7,
  8 => 8, 9 => 9, 10 => 10, 11 => 11,
  12 => 12, 13 => 13, 14 => 14, 15 => 15 )
2=> !
2=> ! e /type=tm_parameters.T_ST1 tm_parameters.tm_Buffer (0)
( 16#0DAC# ) TM_PARAMETERS.T_ST1:
    MODE => KG_MODE_STANDBY
    TUGGLE_BIT => 1
    PROTECTION_STATUS => KG_PROTECTION_ENABLED
    SCRUBBING_STATUS => KG_SCRUBBING_ENABLED
    SCRUBBING_BANK => 0
    CHANNEL => KG_CHANNEL_1
    TM_MODE => KG_TM_MODE_NORMAL
    TC_MODE => KG_TC_MODE_NORMAL
    OPERATIONAL_ERROR_STATUS => KG_NORMAL
2=> ! e /type=tm_parameters.T_ST2_0 tm_parameters.tm_Buffer (1)
( 16#0DAD# ) TM_PARAMETERS.T_ST2_0:
    PHYSICAL_UNIT => 15
    LOGICAL_POINTER => 0
2=> ! e /hex tm_parameters.tm_buffer

16#0DAC#: 16#3000#
16#0DAD#: 16#F000#
16#0DAE#: 16#0#
16#0DAF#: 16#0#
16#0DB0#: 16#0#
16#0DB1#: 16#2#
16#0DB2#: 16#1235#
16#0DB3#: 16#0#

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16#0DB4#: 16#0#
1=> !
1=> ! @TM_request.cmd
2=> ! m /hex \pi := 0010
%TLDBG-E-TASKSYM - Task symbol \SCEDULER.CURRENT_TASK\ not found in symbol table
Proc 1 HALTED Inst Count: 845129 Clock: 1.052_829_1
R0: 60B0 0000 0000 0848 03E0 1FF7 0000 0000 IC: 011C MK: 60B0 SW: 4000
R8: 0000 0000 0000 0000 0000 7FFF 0000 1FF8 PI: *0010 SU: 0 TSK: 0000
2=> ! go /wait
%TLDBG-E-TASKSYM - Task symbol \SCEDULER.CURRENT_TASK\ not found in symbol table
Proc 1 HALTED Inst Count: *845130 Clock: *1.052_830_6
R0: 60B0 0000 0000 0848 03E0 1FF7 0000 0000 IC: *0C73 MK: *20A0 SW: *0000
R8: 0000 0000 0000 0000 0000 7FFF 0000 1FF8 PI: *0000 SU: 0 TSK: 0000
BP taken at GEI_IT/ISECT1+16#4C#: STI R15,16#E49#
2=> ! go /wait
IO Event: 16#8100#
IO Event occurred at INPUT_OUTPUT.READ_IO_REGISTER._28: XIO R2,16#0#,R4 (PI)
IO Event: 16#120#
IO Event occurred at INPUT_OUTPUT.WRITE_IO_REGISTER._35: XIO R4,16#0#,R2 (PO)
IO Event: 16#128#
IO Event occurred at INPUT_OUTPUT.WRITE_IO_REGISTER._35: XIO R4,16#0#,R2 (PO)
%TLDBG-E-TASKSYM - Task symbol \SCEDULER.CURRENT_TASK\ not found in symbol table
Proc 1 HALTED Inst Count: *845385 Clock: *1.053_481_05
R0: 60B0 0000 0000 0848 03E0 1FF7 0000 0000 IC: *0CDA MK: *0000 SW: *4000
R8: 0000 0000 0000 0000 0000 7FFF 0000 1FF8 PI: 0000 SU: 0 TSK: 0000
BP taken at GEI_IT/ISECT1+16#B3#: LST 16#DE1#
2=> ! go/wait=2
2=> ! halt
%TLDBG-E-TASKSYM - Task symbol \SCEDULER.CURRENT_TASK\ not found in symbol table
Proc 1 HALTED Inst Count: *867585 Clock: *1.084_176_05
R0: 60B0 0000 0000 *0C9E 03E0 1FF7 0000 0000 IC: *011C MK: *60B0 SW: 4000
R8: 0000 0000 0000 0000 0000 7FFF 0000 1FF8 PI: 0000 SU: 0 TSK: 0000
Halted at MODES.BACKGROUND_TASK_ACTIVATION._137+16#2#: BR
MODES.BACKGROUND_TASK_ACTIVATION._123
1=> !
1=> !
1=> !
1=> !
1=> ! m modes . mode := KG_Mode_Dump
1=> ! m /type=tm_parameters.T_ST1 tm_parameters.tm_buffer (0) := (Mode => KG_Mode_Dump)
1=> ! m /hex tm_parameters.tm_Buffer (1) := 5500
1=> ! m /hex dump_record_DMA . Current_pointer := 500
1=> ! m /hex dump_record_DMA . next_pointer := 4FF
1=> ! m /hex dump_record_DMA . Current_physical_unit := 5
1=> ! m /hex dump_record_DMA . Next_physical_unit := 4
1=> ! m dump_record_DMA . Begin_Of_Stack_Detection := KG_NO
1=> ! m dump_record_DMA . Register_Selection := KG_REG_1
1=> ! m /hex statistics . statistics_Table (0) := 0000
1=> ! m /hex statistics . statistics_Table (1) := 0000
1=> ! m /hex statistics . statistics_Table (2) := 0000
1=> ! m /hex statistics . statistics_Table (3) := 0000
1=> ! m /hex statistics . statistics_Table (4) := 1235
1=> !
1=> ! @Receive_End_Dump_Record_IT.cmd
2=> ! m /hex \pi := 2000
%TLDBG-E-TASKSYM - Task symbol \SCEDULER.CURRENT_TASK\ not found in symbol table
Proc 1 HALTED Inst Count: 867585 Clock: 1.084_176_05
R0: 60B0 0000 0000 0C9E 03E0 1FF7 0000 0000 IC: 011C MK: 60B0 SW: 4000
R8: 0000 0000 0000 0000 0000 7FFF 0000 1FF8 PI: *2000 SU: 0 TSK: 0000
2=> ! go /wait
%TLDBG-E-TASKSYM - Task symbol \SCEDULER.CURRENT_TASK\ not found in symbol table
Proc 1 HALTED Inst Count: *867586 Clock: *1.084_177_55
R0: 60B0 0000 0000 0C9E 03E0 1FF7 0000 0000 IC: *1010 MK: *0000 SW: *0000
R8: 0000 0000 0000 0000 0000 7FFF 0000 1FF8 PI: *0000 SU: 0 TSK: 0000
BP taken at GEI_IT/ISECTM1: STI R15,16#E49#
1=> ! set break modes . end_dump_record_request'end
Breakpoint already set at location.
1=> ! go /wait
IO Event: 16#8138#
IO Event occurred at INPUT_OUTPUT.READ_IO_REGISTER._28: XIO R2,16#0#,R4 (PI)
IO Event: 16#8100#
IO Event occurred at INPUT_OUTPUT.READ_IO_REGISTER._28: XIO R2,16#0#,R4 (PI)
IO Event: 16#148#
IO Event occurred at INPUT_OUTPUT.WRITE_IO_REGISTER._35: XIO R4,16#0#,R2 (PO)
%TLDBG-E-TASKSYM - Task symbol \SCEDULER.CURRENT_TASK\ not found in symbol table
Proc 1 HALTED Inst Count: *867950 Clock: *1.084_764
R0: *0020 *0004 *0001 *F000 *0FFF *0400 *0F00 0000 IC: *008C MK: *4000 SW: *4000

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R8: 0000 0000 *0006 *1265 0000 *0000 *0001 *1FF4 PI: 0000 SU: 0 TSK: 0000
BP taken at MODES.END_DUMP_RECORD_REQUEST._54: LIM R15,16#3#,R15
1=> !
1=> ! e modes.end_dump_record_request.completion_Status
( 16#0.1FF4o# ) MODES.END_DUMP_RECORD_REQUEST.COMPLETION_STATUS: KG_NOT_COMPLETED
1=> ! go /wait
%TLDBG-E-TASKSYM - Task symbol \SCEDULER.CURRENT_TASK\ not found in symbol table
Proc 1 HALTED Inst Count:*867968 Clock:*1.084_802_2
R0: *60B0 *0000 *0000 *0C9E *03E0 *1FF7 *0000 0000 IC:*0CDA MK:*0000 SW: 4000
R8: 0000 0000 *0000 0000 *7FFF *0000 *1FF8 PI: 0000 SU: 0 TSK: 0000
BP taken at GEI_IT/ISECT1+16#B3#: LST 16#DE1#
1=> !
1=> ! go /wait=2
1=> ! halt
%TLDBG-E-TASKSYM - Task symbol \SCEDULER.CURRENT_TASK\ not found in symbol table
Proc 1 HALTED Inst Count:*887568 Clock:*1.111_902_7
R0: 60B0 0000 0000 *1072 03E0 1FF7 0000 0000 IC:*011C MK:*60B0 SW: 4000
R8: 0000 0000 0000 0000 0000 7FFF 0000 1FF8 PI: 0000 SU: 0 TSK: 0000
Halted at MODES.BACKGROUND_TASK_ACTIVATION._137+16#2#: BR
MODES.BACKGROUND_TASK_ACTIVATION._123
1=> ! @print_dump_rec_param.cmd
2=> ! e modes . mode
( 16#0DA8# ) MODES.MODE: KG_MODE_DUMP
2=> ! e dump_record_DMA . Begin_Of_Stack_Detection
( 16#0DD6# ) DUMP_RECORD_DMA.BEGIN_OF_STACK_DETECTION: KG_NO
2=> ! e dump_record_DMA . End_Of_Stack_Detection
( 16#0DD7# ) DUMP_RECORD_DMA.END_OF_STACK_DETECTION: KG_NO
2=> ! e dump_record_DMA . Standby_Exec_Status
( 16#0DD9# ) DUMP_RECORD_DMA.STANDBY_EXEC_STATUS: KG_NO_EXEC
2=> ! e /hex dump_record_DMA . Current_Pointer
16#0DD2#: 16#4FF#
2=> ! e /hex dump_record_DMA . Current_physical_unit
16#0DD3#: 16#4#
2=> ! e /hex dump_record_DMA . Next_Pointer
16#0DD4#: 16#4FE#
2=> ! e /hex dump_record_DMA . Next_physical_unit
16#0DD5#: 16#4#
2=> ! e dump_record_DMA . register_Selection
( 16#0DD8# ) DUMP_RECORD_DMA.REGISTER_SELECTION: KG_REG_0
2=> ! e /hex statistics . statistics_table
16#0DCD#: 16#20#
16#0DCE#: 16#0#
16#0DCF#: 16#0#
16#0DD0#: 16#0#
16#0DD1#: 16#1265#
2=> ! e memory_units.Corresponding_Table
( 16#0DB6# ) MEMORY_UNITS.CORRESPONDING_TABLE:
( 0 => 0, 1 => 1, 2 => 2, 3 => 3,
  4 => 4, 5 => 5, 6 => 6, 7 => 7,
  8 => 8, 9 => 9, 10 => 10, 11 => 11,
  12 => 12, 13 => 13, 14 => 14, 15 => 15 )
2=> !
2=> ! e /type=tm_parameters.T_ST1 tm_parameters.tm_Buffer (0)
( 16#0DAC# ) TM_PARAMETERS.T_ST1:
    MODE => KG_MODE_DUMP
    TUGGLE_BIT => 0
    PROTECTION_STATUS => KG_PROTECTION_ENABLED
    SCRUBBING_STATUS => KG_SCRUBBING_ENABLED
    SCRUBBING_BANK => 0
    CHANNEL => KG_CHANNEL_1
    TM_MODE => KG_TM_MODE_NORMAL
    TC_MODE => KG_TC_MODE_NORMAL
    OPERATIONAL_ERROR_STATUS => KG_NORMAL
2=> ! e /type=tm_parameters.T_ST2_0 tm_parameters.tm_Buffer (1)
( 16#0DAD# ) TM_PARAMETERS.T_ST2_0:
    PHYSICAL_UNIT => 4
    LOGICAL_POINTER => 1279
2=> ! e /hex tm_parameters.tm_buffer
16#0DAC#: 16#6000#
16#0DAD#: 16#44FF#
16#0DAE#: 16#20#
16#0DAF#: 16#0#
16#0DB0#: 16#0#
16#0DB1#: 16#0#
16#0DB2#: 16#1265#
16#0DB3#: 16#0#
16#0DB4#: 16#0#

```



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R0: 60B0 0000 0000 163A 03E0 1FF7 0000 0000 IC: 011C MK: 60B0 SW: 4000
R8: 0000 0000 0000 0000 0000 7FFF 0000 1FF8 PI: *2000 SU: 0 TSK: 0000
2=> ! go /wait
%TLDBG-E-TASKSYM - Task symbol \SCHEDULER.CURRENT_TASK\ not found in symbol table
Proc 1 HALTED Inst Count: *917426 Clock: *1.153_483_25
R0: 60B0 0000 0000 163A 03E0 1FF7 0000 0000 IC: *1010 MK: *0000 SW: *0000
R8: 0000 0000 0000 0000 0000 7FFF 0000 1FF8 PI: *0000 SU: 0 TSK: 0000
BP taken at GEI_IT/ISECTM1: STI R15,16#E49#
1=> ! set break modes . end_dump_record_request'end
Breakpoint already set at location.
1=> ! go /wait
IO Event: 16#8130#
IO Event occurred at INPUT_OUTPUT.READ_IO_REGISTER._28: XIO R2,16#0#,R4 (PI)
IO Event: 16#8100#
IO Event occurred at INPUT_OUTPUT.READ_IO_REGISTER._28: XIO R2,16#0#,R4 (PI)
IO Event: 16#140#
IO Event occurred at INPUT_OUTPUT.WRITE_IO_REGISTER._35: XIO R4,16#0#,R2 (PO)
%TLDBG-E-TASKSYM - Task symbol \SCHEDULER.CURRENT_TASK\ not found in symbol table
Proc 1 HALTED Inst Count: *917783 Clock: *1.154_059
R0: *0000 *000A *0001 *F000 *0FFF *0A00 *0F00 0000 IC: *008C MK: *4000 SW: *4000
R8: 0000 0000 0000 *1235 0000 *0000 0000 *1FF4 PI: 0000 SU: 0 TSK: 0000
BP taken at MODES.END_DUMP_RECORD_REQUEST._54: LIM R15,16#3#,R15
1=> !
1=> ! e modes.end_dump_record_request.completion_Status
( 16#0.1FF40# ) MODES.END_DUMP_RECORD_REQUEST.COMPLETION_STATUS: KG_NOT_COMPLETED
1=> ! go /wait
%TLDBG-E-TASKSYM - Task symbol \SCHEDULER.CURRENT_TASK\ not found in symbol table
Proc 1 HALTED Inst Count: *917801 Clock: *1.154_097_2
R0: *60B0 *0000 *0000 *163A *03E0 *1FF7 *0000 0000 IC: *0CDA MK: *0000 SW: 4000
R8: 0000 0000 0000 0000 *7FFF 0000 *1FF8 PI: 0000 SU: 0 TSK: 0000
BP taken at GEI_IT/ISECT1+16#B3#: LST 16#DE1#
1=> !
1=> ! go /wait=2
1=> ! halt
%TLDBG-E-TASKSYM - Task symbol \SCHEDULER.CURRENT_TASK\ not found in symbol table
Proc 1 HALTED Inst Count: *937401 Clock: *1.181_197_7
R0: 60B0 0000 0000 *1A0E 03E0 1FF7 0000 0000 IC: *011C MK: *60B0 SW: 4000
R8: 0000 0000 0000 0000 7FFF 0000 1FF8 PI: 0000 SU: 0 TSK: 0000
Halted at MODES.BACKGROUND_TASK_ACTIVATION._137+16#2#: BR
MODES.BACKGROUND_TASK_ACTIVATION._123
1=> ! @print_dump_rec_param.cmd
2=> ! e modes . mode
( 16#0DA8# ) MODES.MODE: KG_MODE_DUMP
2=> ! e dump_record_DMA . Begin_Of_Stack_Detection
( 16#0DD6# ) DUMP_RECORD_DMA.BEGIN_OF_STACK_DETECTION: KG_NO
2=> ! e dump_record_DMA . End_Of_Stack_Detection
( 16#0DD7# ) DUMP_RECORD_DMA.END_OF_STACK_DETECTION: KG_NO
2=> ! e dump_record_DMA . Standby_Exec_Status
( 16#0DD9# ) DUMP_RECORD_DMA.STANDBY_EXEC_STATUS: KG_NO_EXEC
2=> ! e /hex dump_record_DMA . Current_Pointer
16#0DD2#: 16#584#
2=> ! e /hex dump_record_DMA . Current_physical_unit
16#0DD3#: 16#A#
2=> ! e /hex dump_record_DMA . Next_Pointer
16#0DD4#: 16#583#
2=> ! e /hex dump_record_DMA . Next_physical_unit
16#0DD5#: 16#A#
2=> ! e dump_record_DMA . register_Selection
( 16#0DD8# ) DUMP_RECORD_DMA.REGISTER_SELECTION: KG_REG_1
2=> ! e /hex statistics . statistics_table
16#0DCD#: 16#0#
16#0DCE#: 16#0#
16#0DCF#: 16#0#
16#0DD0#: 16#400#
16#0DD1#: 16#1235#
2=> ! e memory_units.Corresponding_Table
( 16#0DB6# ) MEMORY_UNITS.CORRESPONDING_TABLE:
    ( 0 => 15, 1 => 14, 2 => 13, 3 => 12,
      4 => 11, 5 => 10, 6 => 9, 7 => 8,
      8 => 7, 9 => 6, 10 => 5, 11 => 4,
      12 => 3, 13 => 2, 14 => 1, 15 => 0 )
2=> !
2=> ! e /type=tm_parameters.T_ST1 tm_parameters.tm_Buffer (0)
( 16#0DAC# ) TM_PARAMETERS.T_ST1:
    MODE => KG_MODE_DUMP
    TUGGLE_BIT => 1
    PROTECTION_STATUS => KG_PROTECTION_ENABLED

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1=> ! m /type=tm_parameters.T_ST1 tm_parameters.tm_buffer (0) := (Mode => KG_Mode_Dump)
1=> ! m /hex tm_parameters.tm_Buffer (1) := 0001
1=> ! m /hex dump_record_DMA . Current_pointer := 001
1=> ! m /hex dump_record_DMA . next_pointer := 000
1=> ! m /hex dump_record_DMA . Current_physical_unit := 0
1=> ! m /hex dump_record_DMA . Next_physical_unit := 0
1=> ! m /hex dump_record_DMA . Begin_Of_Stack_Detection := KG_NO
1=> ! m /hex dump_record_DMA . Register_Selection := KG_REG_1
1=> ! m /hex statistics . statistics_Table (0) := 0000
1=> ! m /hex statistics . statistics_Table (1) := 0000
1=> ! m /hex statistics . statistics_Table (2) := 0000
1=> ! m /hex statistics . statistics_Table (3) := 0000
1=> ! m /hex statistics . statistics_Table (4) := 1235
1=> !
1=> ! @Receive_End_Dump_Record_IT.cmd
2=> ! m /hex \pi := 2000
%TLDBG-E-TASKSYM - Task symbol \SCHEDULER.CURRENT_TASK\ not found in symbol table
Proc 1 HALTED Inst Count: 956457 Clock: 1.207_844_15
R0: 60B0 0000 0000 1DBA 03E0 1FFF 0000 0000 IC: 011C MK: 60B0 SW: 4000
R8: 0000 0000 0000 0000 0000 7FFF 0000 1FF8 PI: *2000 SU: 0 TSK: 0000
2=> ! go /wait
%TLDBG-E-TASKSYM - Task symbol \SCHEDULER.CURRENT_TASK\ not found in symbol table
Proc 1 HALTED Inst Count: *956458 Clock: *1.207_845_65
R0: 60B0 0000 0000 1DBA 03E0 1FFF 0000 0000 IC: *1010 MK: *0000 SW: *0000
R8: 0000 0000 0000 0000 0000 7FFF 0000 1FF8 PI: *0000 SU: 0 TSK: 0000
BP taken at GEI_IT/ISECTM1: STI R15,16#E49#
1=> ! set break modes . end_dump_record_request'end
Breakpoint already set at location.
1=> ! go /wait
IO Event: 16#8138#
IO Event occurred at INPUT_OUTPUT.READ_IO_REGISTER._28: XIO R2,16#0#,R4 (PI)
%TLDBG-E-TASKSYM - Task symbol \SCHEDULER.CURRENT_TASK\ not found in symbol table
Proc 1 HALTED Inst Count: *956728 Clock: *1.208_250_4
R0: *8000 *0001 *0001 *F000 *0FFF 1FFF 0000 0000 IC: *008C MK: *4000 SW: *4000
R8: 0000 0000 0000 *1234 0000 *0000 0000 *1FF4 PI: 0000 SU: 0 TSK: 0000
BP taken at MODES.END_DUMP_RECORD_REQUEST._54: LIM R15,16#3#,R15
1=> !
1=> ! e modes.end_dump_record_request.completion_Status
( 16#0.1FF40# ) MODES.END_DUMP_RECORD_REQUEST.COMPLETION_STATUS: KG_NOT_COMPLETED
1=> ! go /wait
%TLDBG-E-TASKSYM - Task symbol \SCHEDULER.CURRENT_TASK\ not found in symbol table
Proc 1 HALTED Inst Count: *956746 Clock: *1.208_288_6
R0: *60B0 *0000 *0000 *1DBA *03E0 1FFF 0000 0000 IC: *0CDA MK: *0000 SW: 4000
R8: 0000 0000 0000 *0000 0000 *7FFF 0000 1FF8 PI: 0000 SU: 0 TSK: 0000
BP taken at GEI_IT/ISECT1+16#B3#: LST 16#DE1#
1=> !
1=> ! go /wait=2
1=> ! halt
%TLDBG-E-TASKSYM - Task symbol \SCHEDULER.CURRENT_TASK\ not found in symbol table
Proc 1 HALTED Inst Count: *977546 Clock: *1.237_048_1
R0: 60B0 0000 0000 *21CA 03E0 1FFF 0000 0000 IC: *011C MK: *60B0 SW: 4000
R8: 0000 0000 0000 0000 0000 7FFF 0000 1FF8 PI: 0000 SU: 0 TSK: 0000
Halted at MODES.BACKGROUND_TASK_ACTIVATION._137+16#2#: BR
MODES.BACKGROUND_TASK_ACTIVATION._123
1=> ! @print_dump_rec_param.cmd
2=> ! e modes . mode
( 16#0DA8# ) MODES.MODE: KG_MODE_DUMP
2=> ! e dump_record_DMA . Begin_Of_Stack_Detection
( 16#0DD6# ) DUMP_RECORD_DMA.BEGIN_OF_STACK_DETECTION: KG_YES
2=> ! e dump_record_DMA . End_Of_Stack_Detection
( 16#0DD7# ) DUMP_RECORD_DMA.END_OF_STACK_DETECTION: KG_NO
2=> ! e dump_record_DMA . Standby_Exec_Status
( 16#0DD9# ) DUMP_RECORD_DMA.STANDBY_EXEC_STATUS: KG_NO_EXEC
2=> ! e /hex dump_record_DMA . Current_Pointer
16#0DD2#: 16#0#
2=> ! e /hex dump_record_DMA . Current_physical_unit
16#0DD3#: 16#0#
2=> ! e /hex dump_record_DMA . Next_Pointer
16#0DD4#: 16#0#
2=> ! e /hex dump_record_DMA . Next_physical_unit
16#0DD5#: 16#0#
2=> ! e dump_record_DMA . register_Selection
( 16#0DD8# ) DUMP_RECORD_DMA.REGISTER_SELECTION: KG_REG_0
2=> ! e /hex statistics . statistics_table
16#0DCD#: 16#8000#
16#0DCE#: 16#0#
16#0DCF#: 16#0#

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16#0DD0#: 16#0#
16#0DD1#: 16#1234#
2=> ! e memory_units.Corresponding_Table
( 16#0DB6# ) MEMORY_UNITS.CORRESPONDING_TABLE:
( 0 => 0,           1 => 1,           2 => 2,           3 => 3,
  4 => 4,           5 => 5,           6 => 6,           7 => 7,
  8 => 8,           9 => 9,           10 => 10,          11 => 11,
  12 => 12,          13 => 13,          14 => 14,          15 => 15 )

2=> !
2=> ! e /type=tm_parameters.T_ST1 tm_parameters.tm_Buffer (0)
( 16#0DAC# ) TM_PARAMETERS.T_ST1:
  MODE => KG_MODE_DUMP
  TUGGLE_BIT => 0
  PROTECTION_STATUS => KG_PROTECTION_ENABLED
  SCRUBBING_STATUS => KG_SCRUBBING_ENABLED
  SCRUBBING_BANK => 0
  CHANNEL => KG_CHANNEL_1
  TM_MODE => KG_TM_MODE_NORMAL
  TC_MODE => KG_TC_MODE_NORMAL
  OPERATIONAL_ERROR_STATUS => KG_NORMAL

2=> ! e /type=tm_parameters.T_ST2_0 tm_parameters.tm_Buffer (1)
( 16#0DAD# ) TM_PARAMETERS.T_ST2_0:
  PHYSICAL_UNIT => 0
  LOGICAL_POINTER => 0

2=> ! e /hex tm_parameters.tm_buffer
16#0DAC#: 16#6000#
16#0DAD#: 16#0#
16#0DAE#: 16#8000#
16#0DAF#: 16#0#
16#0DB0#: 16#0#
16#0DB1#: 16#0#
16#0DB2#: 16#1234#
16#0DB3#: 16#0#
16#0DB4#: 16#0#
1=> !
1=> ! @TM_request.cmd
2=> ! m /hex \pi := 0010
%TLDBG-E-TASKSYM - Task symbol \SCHEDULER.CURRENT_TASK\ not found in symbol table
Proc 1 HALTED Inst Count: 977546 Clock: 1.237_048_1
R0: 60B0 0000 0000 21CA 03E0 1FFF 0000 0000 IC: 011C MK: 60B0 SW: 4000
R8: 0000 0000 0000 0000 0000 7FFF 0000 1FF8 PI: *0010 SU: 0 TSK: 0000
2=> ! go /wait
%TLDBG-E-TASKSYM - Task symbol \SCHEDULER.CURRENT_TASK\ not found in symbol table
Proc 1 HALTED Inst Count: *977547 Clock: *1.237_049_6
R0: 60B0 0000 0000 21CA 03E0 1FFF 0000 0000 IC: *0C73 MK: *20A0 SW: *0000
R8: 0000 0000 0000 0000 0000 7FFF 0000 1FF8 PI: *0000 SU: 0 TSK: 0000
BP taken at GEI_IT/ISELECT1+16#4C#: STI R15, 16#E49#
2=> ! go /wait
IO Event: 16#8100#
IO Event occurred at INPUT_OUTPUT.READ_IO_REGISTER._28: XIO R2, 16#0#, R4 (PI)
IO Event: 16#120#
IO Event occurred at INPUT_OUTPUT.WRITE_IO_REGISTER._35: XIO R4, 16#0#, R2 (PO)
IO Event: 16#128#
IO Event occurred at INPUT_OUTPUT.WRITE_IO_REGISTER._35: XIO R4, 16#0#, R2 (PO)
%TLDBG-E-TASKSYM - Task symbol \SCHEDULER.CURRENT_TASK\ not found in symbol table
Proc 1 HALTED Inst Count: *977803 Clock: *1.237_701_65
R0: 60B0 0000 0000 21CA 03E0 1FFF 0000 0000 IC: *0CDA MK: *0000 SW: *4000
R8: 0000 0000 0000 0000 0000 7FFF 0000 1FF8 PI: 0000 SU: 0 TSK: 0000
BP taken at GEI_IT/ISELECT1+16#B3#: LST 16#DE1#
2=> ! go/wait=2
2=> ! halt
%TLDBG-E-TASKSYM - Task symbol \SCHEDULER.CURRENT_TASK\ not found in symbol table
Proc 1 HALTED Inst Count: *996603 Clock: *1.263_696_15
R0: 60B0 0000 0000 *2576 03E0 1FFF 0000 0000 IC: *011C MK: *60B0 SW: 4000
R8: 0000 0000 0000 0000 0000 7FFF 0000 1FF8 PI: 0000 SU: 0 TSK: 0000
Halted at MODES.BACKGROUND_TASK_ACTIVATION._137+16#2#: BR
MODES.BACKGROUND_TASK_ACTIVATION._123
1=> !
1=> !
1=> !
1=> !
1=> !
1=> !
1=> ! m modes . mode := KG_Mode_Dump
1=> ! m /type=tm_parameters.T_ST1 tm_parameters.tm_Buffer (0) := (Mode => KG_Mode_Dump)
1=> ! m /hex tm_parameters.tm_Buffer (1) := AA11
1=> ! m /hex dump_record_DMA . Current_pointer := A11

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1=> ! m /hex dump_record_DMA . next_pointer := A10
1=> ! m /hex dump_record_DMA . Current_physical_unit := A
1=> ! m /hex dump_record_DMA . Next_physical_unit := A
1=> ! m dump_record_DMA . Begin_Of_Stack_Detection := KG_NO
1=> ! m dump_record_DMA . Register_Selection := KG_REG_1
1=> ! m /hex statistics . statistics_Table (0) := 0000
1=> ! m /hex statistics . statistics_Table (1) := 0800
1=> ! m /hex statistics . statistics_Table (2) := FFFF
1=> ! m /hex statistics . statistics_Table (3) := F7FF
1=> ! m /hex statistics . statistics_Table (4) := 00FC
1=> !
1=> ! @Receive_End_Dump_Record_IT.cmd
2=> ! m /hex \pi := 2000
%TLDBG-E-TASKSYM - Task symbol \SCEDULER.CURRENT_TASK\ not found in symbol table
Proc 1 HALTED Inst Count: 996603 Clock: 1.263_696_15
R0: 60B0 0000 0000 2576 03E0 1FF7 0000 0000 IC: 011C MK: 60B0 SW: 4000
R8: 0000 0000 0000 0000 0000 7FFF 0000 1FF8 PI: *2000 SU: 0 TSK: 0000
2=> ! go /wait
%TLDBG-E-TASKSYM - Task symbol \SCEDULER.CURRENT_TASK\ not found in symbol table
Proc 1 HALTED Inst Count: *996604 Clock: *1.263_697_65
R0: 60B0 0000 0000 2576 03E0 1FF7 0000 0000 IC: *1010 MK: *0000 SW: *0000
R8: 0000 0000 0000 0000 0000 7FFF 0000 1FF8 PI: *0000 SU: 0 TSK: 0000
BP taken at GEI_IT/ISELECTM1: STI R15,16#E49#
1=> ! set break modes . end_dump_record_request'end
Breakpoint already set at location.
1=> ! go /wait
IO Event: 16#8138#
IO Event occurred at INPUT_OUTPUT.READ_IO_REGISTER._28: XIO R2,16#0#,R4 (PI)
IO Event: 16#8100#
IO Event occurred at INPUT_OUTPUT.READ_IO_REGISTER._28: XIO R2,16#0#,R4 (PI)
IO Event: 16#8100#
IO Event occurred at INPUT_OUTPUT.READ_IO_REGISTER._28: XIO R2,16#0#,R4 (PI)
IO Event: 16#148#
IO Event occurred at INPUT_OUTPUT.WRITE_IO_REGISTER._35: XIO R4,16#0#,R2 (PO)
%TLDBG-E-TASKSYM - Task symbol \SCEDULER.CURRENT_TASK\ not found in symbol table
Proc 1 HALTED Inst Count: *997024 Clock: *1.264_383_45
R0: *0000 *0009 *0001 *F000 *0FFF *0900 *0F00 0000 IC: *008C MK: *4000 SW: *4000
R8: 0000 0000 0000 *00FC 0000 *0000 0000 *1FF4 PI: 0000 SU: 0 TSK: 0000
BP taken at MODES.END_DUMP_RECORD_REQUEST._54: LIM R15,16#3#,R15
1=> !
1=> ! e modes.end_dump_record_request.completion_Status
( 16#0.1FF40# ) MODES.END_DUMP_RECORD_REQUEST.COMPLETION_STATUS: KG_NOT_COMPLETED
1=> ! go /wait
%TLDBG-E-TASKSYM - Task symbol \SCEDULER.CURRENT_TASK\ not found in symbol table
Proc 1 HALTED Inst Count: *997042 Clock: *1.264_421_65
R0: *60B0 *0000 *0000 *2576 *03E0 *1FF7 *0000 0000 IC: *0CDA MK: *0000 SW: 4000
R8: 0000 0000 0000 *0000 0000 *7FFF 0000 *1FF8 PI: 0000 SU: 0 TSK: 0000
BP taken at GEI_IT/ISELECT1+16#B3#: LST 16#DE1#
1=> !
1=> ! go /wait=2
1=> ! halt
%TLDBG-E-TASKSYM - Task symbol \SCEDULER.CURRENT_TASK\ not found in symbol table
Proc 1 HALTED Inst Count: *1014642 Clock: *1.288_757_15
R0: 60B0 0000 0000 *28E6 03E0 1FF7 0000 0000 IC: *011C MK: *60B0 SW: 4000
R8: 0000 0000 0000 0000 0000 7FFF 0000 1FF8 PI: 0000 SU: 0 TSK: 0000
Halted at MODES.BACKGROUND_TASK_ACTIVATION._137+16#2#: BR
MODES.BACKGROUND_TASK_ACTIVATION._123
1=> ! @print_dump_rec_param.cmd
2=> ! e modes . mode
( 16#0DA8# ) MODES.MODE: KG_MODE_DUMP
2=> ! e dump_record_DMA . Begin_Of_Stack_Detection
( 16#0DD6# ) DUMP_RECORD_DMA.BEGIN_OF_STACK_DETECTION: KG_NO
2=> ! e dump_record_DMA . End_Of_Stack_Detection
( 16#0DD7# ) DUMP_RECORD_DMA.END_OF_STACK_DETECTION: KG_NO
2=> ! e dump_record_DMA . Standby_Exec_Status
( 16#0DD9# ) DUMP_RECORD_DMA.STANDBY_EXEC_STATUS: KG_NO_EXEC
2=> ! e /hex dump_record_DMA . Current_Pointer
16#0DD2#: 16#A10#
2=> ! e /hex dump_record_DMA . Current_physical_unit
16#0DD3#: 16#A#
2=> ! e /hex dump_record_DMA . Next_Pointer
16#0DD4#: 16#9FF#
2=> ! e /hex dump_record_DMA . Next_physical_unit
16#0DD5#: 16#9#
2=> ! e dump_record_DMA . register_Selection
( 16#0DD8# ) DUMP_RECORD_DMA.REGISTER_SELECTION: KG_REG_0
2=> ! e /hex statistics . statistics_table

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16#0DCD#: 16#0#
16#0DCE#: 16#800#
16#0DCF#: 16#FFFF#
16#0DD0#: 16#FFFF#
16#0DD1#: 16#FC#
2=> ! e memory_units.Corresponding_Table
( 16#0DB6# ) MEMORY_UNITS.CORRESPONDING_TABLE:
( 0 => 0, 1 => 1, 2 => 2, 3 => 3,
  4 => 4, 5 => 5, 6 => 6, 7 => 7,
  8 => 8, 9 => 9, 10 => 10, 11 => 11,
  12 => 12, 13 => 13, 14 => 14, 15 => 15 )
2=> !
2=> ! e /type=tm_parameters.T_ST1 tm_parameters.tm_Buffer (0)
( 16#0DAC# ) TM_PARAMETERS.T_ST1:
  MODE => KG_MODE_DUMP
  TUGGLE_BIT => 1
  PROTECTION_STATUS => KG_PROTECTION_ENABLED
  SCRUBBING_STATUS => KG_SCRUBBING_ENABLED
  SCRUBBING_BANK => 0
  CHANNEL => KG_CHANNEL_1
  TM_MODE => KG_TM_MODE_NORMAL
  TC_MODE => KG_TC_MODE_NORMAL
  OPERATIONAL_ERROR_STATUS => KG_NORMAL
2=> ! e /type=tm_parameters.T_ST2_0 tm_parameters.tm_Buffer (1)
( 16#0DAD# ) TM_PARAMETERS.T_ST2_0:
  PHYSICAL_UNIT => 10
  LOGICAL_POINTER => 2576
2=> ! e /hex tm_parameters.tm_buffer
16#0DAC#: 16#7000#
16#0DAD#: 16#AA10#
16#0DAE#: 16#0#
16#0DAF#: 16#800#
16#0DB0#: 16#FFFF#
16#0DB1#: 16#FFFF#
16#0DB2#: 16#FC#
16#0DB3#: 16#0#
16#0DB4#: 16#0#
1=> !
1=> ! @TM_request.cmd
2=> ! m /hex \pi := 0010
%TLDBG-E-TASKSYM - Task symbol \SCHEDULER.CURRENT_TASK\ not found in symbol table
Proc 1 HALTED Inst Count: 1014642 Clock: 1.288_757_15
R0: 60B0 0000 0000 28E6 03E0 1FFF 0000 0000 IC: 011C MK: 60B0 SW: 4000
R8: 0000 0000 0000 0000 0000 7FFF 0000 1FF8 PI: *0010 SU: 0 TSK: 0000
2=> ! go /wait
%TLDBG-E-TASKSYM - Task symbol \SCHEDULER.CURRENT_TASK\ not found in symbol table
Proc 1 HALTED Inst Count: *1014643 Clock: *1.288_758_65
R0: 60B0 0000 0000 28E6 03E0 1FFF 0000 0000 IC: *0C73 MK: *20A0 SW: *0000
R8: 0000 0000 0000 0000 0000 7FFF 0000 1FF8 PI: *0000 SU: 0 TSK: 0000
BP taken at GEI_IT/ISELECT1+16#4C#: STI R15,16#E49#
2=> ! go /wait
IO Event: 16#8100#
IO Event occurred at INPUT_OUTPUT.READ_IO_REGISTER._28: XIO R2,16#0#,R4 (PI)
IO Event: 16#120#
IO Event occurred at INPUT_OUTPUT.WRITE_IO_REGISTER._35: XIO R4,16#0#,R2 (PO)
IO Event: 16#128#
IO Event occurred at INPUT_OUTPUT.WRITE_IO_REGISTER._35: XIO R4,16#0#,R2 (PO)
%TLDBG-E-TASKSYM - Task symbol \SCHEDULER.CURRENT_TASK\ not found in symbol table
Proc 1 HALTED Inst Count: *1014898 Clock: *1.289_409_1
R0: 60B0 0000 0000 28E6 03E0 1FFF 0000 0000 IC: *0CDA MK: *0000 SW: *4000
R8: 0000 0000 0000 0000 0000 7FFF 0000 1FF8 PI: 0000 SU: 0 TSK: 0000
BP taken at GEI_IT/ISELECT1+16#B3#: LST 16#DE1#
2=> ! go/wait=2
2=> ! halt
%TLDBG-E-TASKSYM - Task symbol \SCHEDULER.CURRENT_TASK\ not found in symbol table
Proc 1 HALTED Inst Count: *1029898 Clock: *1.310_150_1
R0: 60B0 0000 0000 *2BD4 03E0 1FFF 0000 0000 IC: *011C MK: *60B0 SW: 4000
R8: 0000 0000 0000 0000 0000 7FFF 0000 1FF8 PI: 0000 SU: 0 TSK: 0000
Halted at MODES.BACKGROUND_TASK_ACTIVATION._137+16#2#: BR
MODES.BACKGROUND_TASK_ACTIVATION._123
1=> !
1=> !
1=> !
1=> !
1=> !
1=> !
1=> !
1=> ! m modes . mode := KG_Mode_Dump

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1=> ! m /type=tm_parameters.T_ST1 tm_parameters.tm_buffer (0) := (Mode => KG_Mode_Dump)
1=> ! m /hex tm_parameters.tm_Buffer (1) := 0015
1=> ! m /hex dump_record_DMA . Current_pointer := 015
1=> ! m /hex dump_record_DMA . next_pointer := 016
1=> ! m /hex dump_record_DMA . Current_physical_unit := 0
1=> ! m /hex dump_record_DMA . Next_physical_unit := 0
1=> ! m /hex dump_record_DMA . Begin_Of_Stack_Detection := KG_NO
1=> ! m /hex dump_record_DMA . Register_Selection := KG_REG_0
1=> ! m /hex statistics . statistics_Table (0) := 0000
1=> ! m /hex statistics . statistics_Table (1) := 0000
1=> ! m /hex statistics . statistics_Table (2) := 0000
1=> ! m /hex statistics . statistics_Table (3) := 0000
1=> ! m /hex statistics . statistics_Table (4) := 0000
1=> !
1=> ! @Receive_End_Dump_Record_IT.cmd
2=> ! m /hex \pi := 2000
%TLDBG-E-TASKSYM - Task symbol \SCEDULER.CURRENT_TASK\ not found in symbol table
Proc 1 HALTED Inst Count: 1029898 Clock: 1.310_150_1
R0: 60B0 0000 0000 2BD4 03E0 1FFF 0000 0000 IC: 011C MK: 60B0 SW: 4000
R8: 0000 0000 0000 0000 0000 7FFF 0000 1FF8 PI: *2000 SU: 0 TSK: 0000
2=> ! go /wait
%TLDBG-E-TASKSYM - Task symbol \SCEDULER.CURRENT_TASK\ not found in symbol table
Proc 1 HALTED Inst Count: *1029899 Clock: *1.310_151_6
R0: 60B0 0000 0000 2BD4 03E0 1FFF 0000 0000 IC: *1010 MK: *0000 SW: *0000
R8: 0000 0000 0000 0000 0000 7FFF 0000 1FF8 PI: *0000 SU: 0 TSK: 0000
BP taken at GEI_IT/ISECTM1: STI R15,16#E49#
1=> ! set break modes . end_dump_record_request'end
Breakpoint already set at location.
1=> ! go /wait
IO Event: 16#8130#
IO Event occurred at INPUT_OUTPUT.READ_IO_REGISTER._28: XIO R2,16#0#,R4 (PI)
IO Event: 16#8100#
IO Event occurred at INPUT_OUTPUT.READ_IO_REGISTER._28: XIO R2,16#0#,R4 (PI)
%TLDBG-E-TASKSYM - Task symbol \SCEDULER.CURRENT_TASK\ not found in symbol table
Proc 1 HALTED Inst Count: *1030240 Clock: *1.310_675_85
R0: *0000 0000 *0001 *F000 *0FFF *1FDE *1FEB 0000 IC: *008C MK: *4000 SW: *4000
R8: 0000 0000 0000 0000 *0001 0000 *1FF4 PI: 0000 SU: 0 TSK: 0000
BP taken at MODES.END_DUMP_RECORD_REQUEST._54: LIM R15,16#3#,R15
1=> !
1=> ! e modes.end_dump_record_request.completion_Status
( 16#0.1FF40# ) MODES.END_DUMP_RECORD_REQUEST.COMPLETION_STATUS: KG_NOT_COMPLETED
1=> ! go /wait
%TLDBG-E-TASKSYM - Task symbol \SCEDULER.CURRENT_TASK\ not found in symbol table
Proc 1 HALTED Inst Count: *1030258 Clock: *1.310_714_05
R0: *60B0 0000 *0000 *2BD4 *03E0 *1FFF *0000 0000 IC: *0CDA MK: *0000 SW: 4000
R8: 0000 0000 0000 0000 *7FFF 0000 *1FF8 PI: 0000 SU: 0 TSK: 0000
BP taken at GEI_IT/ISECT1+16#B3#: LST 16#DE1#
1=> !
1=> ! go /wait=2
1=> ! halt
%TLDBG-E-TASKSYM - Task symbol \SCEDULER.CURRENT_TASK\ not found in symbol table
Proc 1 HALTED Inst Count: *1046458 Clock: *1.333_114_05
R0: 60B0 0000 0000 *2EFE 03E0 1FFF 0000 0000 IC: *011C MK: *60B0 SW: 4000
R8: 0000 0000 0000 0000 7FFF 0000 1FF8 PI: 0000 SU: 0 TSK: 0000
Halted at MODES.BACKGROUND_TASK_ACTIVATION._137+16#2#: BR
MODES.BACKGROUND_TASK_ACTIVATION._123
1=> ! @print_dump_rec_param.cmd
2=> ! e modes . mode

( 16#0DA8# ) MODES.MODE: KG_MODE_DUMP
2=> ! e dump_record_DMA . Begin_Of_Stack_Detection
( 16#0DD6# ) DUMP_RECORD_DMA.BEGIN_OF_STACK_DETECTION: KG_YES
2=> ! e dump_record_DMA . End_Of_Stack_Detection
( 16#0DD7# ) DUMP_RECORD_DMA.END_OF_STACK_DETECTION: KG_NO
2=> ! e dump_record_DMA . Standby_Exec_Status
( 16#0DD9# ) DUMP_RECORD_DMA.STANDBY_EXEC_STATUS: KG_NO_EXEC
2=> ! e /hex dump_record_DMA . Current_Pointer
16#0DD2#: 16#16#
2=> ! e /hex dump_record_DMA . Current_physical_unit
16#0DD3#: 16#0#
2=> ! e /hex dump_record_DMA . Next_Pointer
16#0DD4#: 16#15#
2=> ! e /hex dump_record_DMA . Next_physical_unit
16#0DD5#: 16#0#
2=> ! e dump_record_DMA . register_Selection
( 16#0DD8# ) DUMP_RECORD_DMA.REGISTER_SELECTION: KG_REG_1

```

```

2=> ! e /hex statistics . statistics_table
16#0DCD#: 16#0#
16#0DCE#: 16#0#
16#0DCF#: 16#0#
16#0DD0#: 16#0#
16#0DD1#: 16#0#
2=> ! e memory_units.Corresponding_Table
( 16#0DB6# ) MEMORY_UNITS.CORRESPONDING_TABLE:
( 0 => 0, 1 => 1, 2 => 2, 3 => 3,
  4 => 4, 5 => 5, 6 => 6, 7 => 7,
  8 => 8, 9 => 9, 10 => 10, 11 => 11,
  12 => 12, 13 => 13, 14 => 14, 15 => 15 )
2=> !
2=> ! e /type=tm_parameters.T_ST1 tm_parameters.tm_Buffer (0)
( 16#0DAC# ) TM_PARAMETERS.T_ST1:
  MODE => KG_MODE_DUMP
  TUGGLE_BIT => 0
  PROTECTION_STATUS => KG_PROTECTION_ENABLED
  SCRUBBING_STATUS => KG_SCRUBBING_ENABLED
  SCRUBBING_BANK => 0
  CHANNEL => KG_CHANNEL_1
  TM_MODE => KG_TM_MODE_NORMAL
  TC_MODE => KG_TC_MODE_NORMAL
  OPERATIONAL_ERROR_STATUS => KG_NORMAL
2=> ! e /type=tm_parameters.T_ST2_0 tm_parameters.tm_Buffer (1)
( 16#0DAD# ) TM_PARAMETERS.T_ST2_0:
  PHYSICAL_UNIT => 0
  LOGICAL_POINTER => 22
2=> ! e /hex tm_parameters.tm_buffer
16#0DAC#: 16#6000#
16#0DAD#: 16#16#
16#0DAE#: 16#0#
16#0DAF#: 16#0#
16#0DB0#: 16#0#
16#0DB1#: 16#0#
16#0DB2#: 16#0#
16#0DB3#: 16#20#
16#0DB4#: 16#0#
1=> !
1=> ! @TM_request.cmd
2=> ! m /hex \pi := 0010
%TLDBG-E-TASKSYM - Task symbol \SCEDULER.CURRENT_TASK\ not found in symbol table
Proc 1 HALTED Inst Count: 1046458 Clock: 1.333_114_05
R0: 60B0 0000 0000 2EFE 03E0 1FF7 0000 0000 IC: 011C MK: 60B0 SW: 4000
R8: 0000 0000 0000 0000 0000 7FFF 0000 1FF8 PI: *0010 SU: 0 TSK: 0000
2=> ! go /wait
%TLDBG-E-TASKSYM - Task symbol \SCEDULER.CURRENT_TASK\ not found in symbol table
Proc 1 HALTED Inst Count: *1046459 Clock: *1.333_115_55
R0: 60B0 0000 0000 2EFE 03E0 1FF7 0000 0000 IC: *0C73 MK: *20A0 SW: *0000
R8: 0000 0000 0000 0000 0000 7FFF 0000 1FF8 PI: *0000 SU: 0 TSK: 0000
BP taken at GEI_IT/ISELECT1+16#4C#: STI R15, 16#E49#
2=> ! go /wait
IO Event: 16#8100#
IO Event occurred at INPUT_OUTPUT.READ_IO_REGISTER._28: XIO R2, 16#0#, R4 (PI)
IO Event: 16#120#
IO Event occurred at INPUT_OUTPUT.WRITE_IO_REGISTER._35: XIO R4, 16#0#, R2 (PO)
IO Event: 16#128#
IO Event occurred at INPUT_OUTPUT.WRITE_IO_REGISTER._35: XIO R4, 16#0#, R2 (PO)
%TLDBG-E-TASKSYM - Task symbol \SCEDULER.CURRENT_TASK\ not found in symbol table
Proc 1 HALTED Inst Count: *1046715 Clock: *1.333_767_6
R0: 60B0 0000 0000 2EFE 03E0 1FF7 0000 0000 IC: *0CDA MK: *0000 SW: *4000
R8: 0000 0000 0000 0000 0000 7FFF 0000 1FF8 PI: 0000 SU: 0 TSK: 0000
BP taken at GEI_IT/ISELECT1+16#B3#: LST 16#DE1#
2=> ! go/wait=2
2=> ! halt
%TLDBG-E-TASKSYM - Task symbol \SCEDULER.CURRENT_TASK\ not found in symbol table
Proc 1 HALTED Inst Count: *1072715 Clock: *1.369_716_1
R0: 60B0 0000 0000 *3412 03E0 1FF7 0000 0000 IC: *011C MK: *60B0 SW: 4000
R8: 0000 0000 0000 0000 0000 7FFF 0000 1FF8 PI: 0000 SU: 0 TSK: 0000
Halted at MODES.BACKGROUND_TASK_ACTIVATION._137+16#2#: BR
MODES.BACKGROUND_TASK_ACTIVATION._123
1=> !
1=> !
1=> !
1=> !
1=> !
1=> !

```

```

1=> !
1=> ! m memory_units.corresponding_table (0) := 15
1=> ! m memory_units.corresponding_table (1) := 14
1=> ! m memory_units.corresponding_table (2) := 13
1=> ! m memory_units.corresponding_table (3) := 12
1=> ! m memory_units.corresponding_table (4) := 11
1=> ! m memory_units.corresponding_table (5) := 10
1=> ! m memory_units.corresponding_table (6) := 9
1=> ! m memory_units.corresponding_table (7) := 8
1=> ! m memory_units.corresponding_Table (8) := 7
1=> ! m memory_units.corresponding_table (9) := 6
1=> ! m memory_units.corresponding_table (10) := 5
1=> ! m memory_units.corresponding_table (11) := 4
1=> ! m memory_units.corresponding_table (12) := 3
1=> ! m memory_units.corresponding_table (13) := 2
1=> ! m memory_units.corresponding_table (14) := 1
1=> ! m memory_units.corresponding_table (15) := 0
1=> ! m modes . mode := KG_Mode_Dump
1=> ! m /type=tm_parameters.T_ST1 tm_parameters.tm_buffer (0) := (Mode => KG_Mode_Dump)
1=> ! m /hex tm_parameters.tm_Buffer (1) := F004
1=> ! m /hex dump_record_DMA . Current_pointer := 004
1=> ! m /hex dump_record_DMA . next_pointer := 005
1=> ! m /hex dump_record_DMA . Current_physical_unit := F
1=> ! m /hex dump_record_DMA . Next_physical_unit := F
1=> ! m dump_record_DMA . Begin_Of_Stack_Detection := KG_NO
1=> ! m dump_record_DMA . Register_Selection := KG_REG_0
1=> ! m dump_record_DMA . Standby_Exec_Status := KG_EXEC
1=> ! m /hex statistics . statistics_Table (0) := 0000
1=> ! m /hex statistics . statistics_Table (1) := 0000
1=> ! m /hex statistics . statistics_Table (2) := 0000
1=> ! m /hex statistics . statistics_Table (3) := 0000
1=> ! m /hex statistics . statistics_Table (4) := 1234
1=> !
1=> ! @Receive_End_Dump_Record_IT.cmd
2=> ! m /hex \pi := 2000
%TLDBG-E-TASKSYM - Task symbol \SCEDULER.CURRENT_TASK\ not found in symbol table
Proc 1 HALTED Inst Count: 1072715 Clock: 1.369_716_1
R0: 60B0 0000 0000 3412 03E0 1FFF 0000 0000 IC: 011C MK: 60B0 SW: 4000
R8: 0000 0000 0000 0000 0000 7FFF 0000 1FF8 PI: *2000 SU: 0 TSK: 0000
2=> ! go /wait
%TLDBG-E-TASKSYM - Task symbol \SCEDULER.CURRENT_TASK\ not found in symbol table
Proc 1 HALTED Inst Count: *1072716 Clock: *1.369_717_6
R0: 60B0 0000 0000 3412 03E0 1FFF 0000 0000 IC: *1010 MK: *0000 SW: *0000
R8: 0000 0000 0000 0000 0000 7FFF 0000 1FF8 PI: *0000 SU: 0 TSK: 0000
BP taken at GEI_IT/ISECTM1: STI R15,16#E49#
1=> ! set break modes . end_dump_record_request'end
Breakpoint already set at location.
1=> ! go /wait
IO Event: 16#8130#
IO Event occurred at INPUT_OUTPUT.READ_IO_REGISTER._28: XIO R2,16#0#,R4 (PI)
%TLDBG-E-TASKSYM - Task symbol \SCEDULER.CURRENT_TASK\ not found in symbol table
Proc 1 HALTED Inst Count: *1072979 Clock: *1.370_111_1
R0: *0007 0000 *0001 *F000 *OFFF 1FFF 0000 0000 IC: *008C MK: *4000 SW: *4000
R8: 0000 0000 *0007 *1234 0000 *0001 *0001 *1FF4 PI: 0000 SU: 0 TSK: 0000
BP taken at MODES.END_DUMP_RECORD_REQUEST._54: LIM R15,16#3#,R15
1=> !
1=> ! e modes.end_dump_record_request.completion_Status
( 16#0.1FF40# ) MODES.END_DUMP_RECORD_REQUEST.COMPLETION_STATUS: KG_NOT_COMPLETED
1=> ! go /wait
%TLDBG-E-TASKSYM - Task symbol \SCEDULER.CURRENT_TASK\ not found in symbol table
Proc 1 HALTED Inst Count: *1072997 Clock: *1.370_149_3
R0: *60B0 0000 *0000 *3412 *03E0 1FFF 0000 0000 IC: *0CDA MK: *0000 SW: 4000
R8: 0000 0000 *0000 0000 *7FFF *0000 *1FF8 PI: 0000 SU: 0 TSK: 0000
BP taken at GEI_IT/ISECT1+16#B3#: LST 16#DE1#
1=> !
1=> ! go /wait=2
1=> ! halt
%TLDBG-E-TASKSYM - Task symbol \SCEDULER.CURRENT_TASK\ not found in symbol table
Proc 1 HALTED Inst Count: *1093397 Clock: *1.398_355_8
R0: 60B0 0000 0000 *380E 03E0 1FFF 0000 0000 IC: *011C MK: *60B0 SW: 4000
R8: 0000 0000 0000 0000 7FFF 0000 1FF8 PI: 0000 SU: 0 TSK: 0000
Halted at MODES.BACKGROUND_TASK_ACTIVATION._137+16#2#: BR
MODES.BACKGROUND_TASK_ACTIVATION._123
1=> ! @print_dump_rec_param.cmd
2=> ! e modes . mode
( 16#0DA8# ) MODES.MODE: KG_MODE_DUMP

```

```

2=> ! e dump_record_DMA . Begin_Of_Stack_Detection
( 16#0DD6# ) DUMP_RECORD_DMA.BEGIN_OF_STACK_DETECTION: KG_NO
2=> ! e dump_record_DMA . End_Of_Stack_Detection
( 16#0DD7# ) DUMP_RECORD_DMA.END_OF_STACK_DETECTION: KG_NO
2=> ! e dump_record_DMA . Standby_Exec_Status
( 16#0DD9# ) DUMP_RECORD_DMA.STANDBY_EXEC_STATUS: KG_EXEC
2=> ! e /hex dump_record_DMA . Current_Pointer
16#0DD2#: 16#5#
2=> ! e /hex dump_record_DMA . Current_physical_unit
16#0DD3#: 16#F#
2=> ! e /hex dump_record_DMA . Next_Pointer
16#0DD4#: 16#5#
2=> ! e /hex dump_record_DMA . Next_physical_unit
16#0DD5#: 16#F#
2=> ! e dump_record_DMA . register_Selection
( 16#0DD8# ) DUMP_RECORD_DMA.REGISTER_SELECTION: KG_REG_1
2=> ! e /hex statistics . statistics_table
16#0DCD#: 16#0#
16#0DCE#: 16#0#
16#0DCF#: 16#0#
16#0DD0#: 16#2#
16#0DD1#: 16#1234#
2=> ! e memory_units.Corresponding_Table
( 16#0DB6# ) MEMORY_UNITS.CORRESPONDING_TABLE:
( 0 => 15,          1 => 14,          2 => 13,          3 => 12,
  4 => 11,          5 => 10,          6 => 9,           7 => 8,
  8 => 7,           9 => 6,           10 => 5,          11 => 4,
  12 => 3,          13 => 2,          14 => 1,          15 => 0 )
2=> !
2=> ! e /type=tm_parameters.T_ST1 tm_parameters.tm_Buffer (0)
( 16#0DAC# ) TM_PARAMETERS.T_ST1:
  MODE => KG_MODE_DUMP
  TUGGLE_BIT => 1
  PROTECTION_STATUS => KG_PROTECTION_ENABLED
  SCRUBBING_STATUS => KG_SCRUBBING_ENABLED
  SCRUBBING_BANK => 0
  CHANNEL => KG_CHANNEL_1
  TM_MODE => KG_TM_MODE_NORMAL
  TC_MODE => KG_TC_MODE_NORMAL
  OPERATIONAL_ERROR_STATUS => KG_NORMAL
2=> ! e /type=tm_parameters.T_ST2_0 tm_parameters.tm_Buffer (1)
( 16#0DAD# ) TM_PARAMETERS.T_ST2_0:
  PHYSICAL_UNIT => 15
  LOGICAL_POINTER => 5
2=> ! e /hex tm_parameters.tm_buffer
16#0DAC#: 16#7000#
16#0DAD#: 16#F005#
16#0DAE#: 16#0#
16#0DAF#: 16#0#
16#0DB0#: 16#0#
16#0DB1#: 16#2#
16#0DB2#: 16#1234#
16#0DB3#: 16#8000#
16#0DB4#: 16#0#
1=> !
1=> ! @TM_request.cmd
2=> ! m /hex \pi := 0010
%TLDBG-E-TASKSYM - Task symbol \SCEDULER.CURRENT_TASK\ not found in symbol table
Proc 1 HALTED      Inst Count: 1093397      Clock: 1.398_355_8
R0: 60B0 0000 0000 380E 03E0 1FF7 0000 0000 IC: 011C MK: 60B0 SW: 4000
R8: 0000 0000 0000 0000 7FFF 0000 1FF8 PI: *0010 SU: 0   TSK: 0000
2=> ! go /wait
%TLDBG-E-TASKSYM - Task symbol \SCEDULER.CURRENT_TASK\ not found in symbol table
Proc 1 HALTED      Inst Count: *1093398      Clock: *1.398_357_3
R0: 60B0 0000 0000 380E 03E0 1FF7 0000 0000 IC: *0C73 MK: *20A0 SW: *0000
R8: 0000 0000 0000 0000 7FFF 0000 1FF8 PI: *0000 SU: 0   TSK: 0000
BP taken at GEI_IT/ISELECT1+16#4C#: STI      R15, 16#E49#
2=> ! go /wait
IO Event: 16#8100#
IO Event occurred at INPUT_OUTPUT.READ_IO_REGISTER._28: XIO      R2, 16#0#, R4 (PI)
IO Event: 16#120#
IO Event occurred at INPUT_OUTPUT.WRITE_IO_REGISTER._35: XIO      R4, 16#0#, R2 (PO)
IO Event: 16#128#
IO Event occurred at INPUT_OUTPUT.WRITE_IO_REGISTER._35: XIO      R4, 16#0#, R2 (PO)
%TLDBG-E-TASKSYM - Task symbol \SCEDULER.CURRENT_TASK\ not found in symbol table
Proc 1 HALTED      Inst Count: *1093653      Clock: *1.399_007_75
R0: 60B0 0000 0000 380E 03E0 1FF7 0000 0000 IC: *0CDA MK: *0000 SW: *4000

```



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### 13.2.2 INPUT FILES

## PORT100-MD003.DAT

```
FFFF -- TM request n°1
FFFF -- TM request n°2
FFFF -- Continue Dump - Page FE of Unit 9 available
FFFF -- TM request n°3
FFFF -- Continue Dump - Page 83 of Unit A available
FFFF -- TM request n°4
FFFF -- TM request n°5
FFDF -- Continue Dump - Page 0F of Unit A not available
FFDF -- Continue Dump - Page FF of Unit 9 available
FFDF -- TM request n°6
7FFF -- Continue Dump - Page 15 of unit 0 not available
7FFF -- TM request n°7
7FFF -- TM request n°8
```

PORT130-MD003.DAT

```
00F0 -- Continue Dump - Stats of page 00 of physical unit A
000F -- Continue Dump - Stats of page 85 of A
0000 -- Continue Dump - Stats of page 15 of 0
00F0 -- Continue Dump - Stats of page 04 of 0
0000
0000
0000
0000
0000
0000
0000
0000
```

## P0RT138-MD003.DAT

```
0060 -- Continue Dump - Stats Page 00 of Physical Unit A
0007 -- Continue Dump - Stats Page 01 of Physical Unit 1
0008 -- Continue Dump - Stats Page 11 of Physical Unit A
0000
0000
0000
```

0000  
0000  
0000  
0000  
0000

### 13.2.3 COMMANDS OUTPUT FILE

Command Type : TCD  
No command sent on this port

Command Type : PADR0  
Physical address programmed : 0a83

Command Type : PADR1  
Physical address programmed : 04fe  
Physical address programmed : 09ff

Command Type : ADSC  
No command sent on this port

Command Type : DRMOD  
Stop Dump-Record DMA

Command Type : SCRMOD  
No command sent on this port

Command Type : PATW  
No command sent on this port

Command Type : DL  
No command sent on this port

Command Type : ENMUON  
No command sent on this port

Command Type : 64K  
No command sent on this port

### 13.2.4 TELEMETRY FILE

Line	ST2-7	ST1	ST2-0	ST2-1	ST2-2	ST2-3	ST2-4	ST2-5	ST2-6
0000	0000	3000	0000	0000	0000	0000	0000	0000	0000
0001	0000	2000	f000	0000	0000	0000	0002	1235	0000
0002	0000	7000	44ff	0020	0000	0000	0000	1265	0000
0003	0000	6000	a584	0000	0000	0000	0400	1235	0000
0004	0000	7000	0000	8000	0000	0000	0000	1234	0000
0005	0000	6000	aa10	0000	0800	ffff	ffff	00fc	0020
0006	0000	7000	0016	0000	0000	0000	0000	0000	8000
0007	0000	6000	f005	0000	0000	0000	0002	1234	8000
0008									



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### 13.3 RFG\_MD004

<b>REPORT NB :</b> RFG_MD004 1	<b>REPORT DATE :</b> 25-JUL-05
FUNCTIONAL OR VALIDATION TEST EXECUTION REPORT	
Continue Record	
Manual / Automatical : A	
Used Software Version : FS203	
Test Responsible : V.MALLEVILLE	
Test Plan Identification :	
DOC_EFG 2 Rev 2	
Test Procedure Identification : RFG_MD004	
<b>TESTS CASES COVERED BY THE PROCEDURE :</b>	
EFG_MD130 Continue Record at end of stack	
EFG_MD131 Continue Record on two pages - Selection 1	
EFG_MD132 Continue Record on two pages - Selection 1	
EFG_MD133 Continue Record on one page	
EFG_MD135 Continue Record on two pages - with page skip	
EFG_MD136 Continue Record with skipped pages at end of stack	
EFG_MD137 Continue Record - standby command executing	
EFG_MM401 Continue on Dump/Record DMA - forbidden modes	
<b>IDENTIFIED DIFFERENCES WITH TEST PLAN CASES :</b>	
<b>TEST PROCEDURE STATUS :</b> OK	
<b>TEST INITIAL CONDITIONS :</b>	
FS203 context, after initialization in Standby mode (7 first units ON).	
Starting Execution Date and hour : 13-JUN-05 10h	
Total execution time : 10mn	
Defect numbers found during execution : 0 (For each defect, a defect sheet shall be filled).	



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### JUSTIFICATION DOCUMENTS :

- sequence execution listing,
- input (HW Units Status) file,
- commands output file,
- telemetry file.

### TEST EXECUTION SYNTHESIS :

- context is loaded,
- initial parameters values are verified,
- the 9 sequences are performed : IT 2 is sent 9 times and after each IT handling completion, a TM request is sent.

### TEST RESULTS SYNTHESIS :

Results of the 9 sequences :

- Continue Record at end of stack : OK.
- Continue Record on two pages - selection 1 : OK.
- Continue Record on two pages - selection 0 : OK.
- Continue Record on one page : OK.
- Continue Record on two pages with page skip : OK.
- Continue Record with skipped page at end of stack : OK.
- Continue Record - standby command executing : OK.
- Continue on Dump/Record DMA - Forbidden modes (Standby) : OK.
- Continue on Dump/Record DMA - Forbidden modes (Switch ON) : OK.

For each sequence, whole verifications were performed successfully :

- update of pointer in local and TM parameters.
- update of next pointer, begin/end of stack detection, register selection in local parameters.
- update of the mode in local and TM parameters.
- HW commands are sent correctly and in the right order.

### CONCLUSION ON THE TEST AND ACTIONS :

### 13.3.1 SEQUENCE EXECUTION LISTING

Log file started

TLD Ada Symbolic Debugger TLDdbg VAX/1750A V-3.2.3 25-JUL-2005 17:30:45  
 (c) TLD Systems, Ltd., 1993

```

1=> !
1=> ! @context_init.cmd
2=> ! attach tldmps 1750a
MPS: TLD 1750A Multiple Processor Simulator TLDmps V-1.5.1
MPS: (c) TLD Systems, Ltd., 1993
2=> !
2=> ! restore context_FS203
Loading at 16#00000#
Loading at 16#005DC#
Loading at 16#0BB8#
Loading at 16#01194#
Loading at 16#01770#
Loading at 16#01D4C#
Loading at 16#02328#
Loading at 16#02904#
Loading at 16#02EE0#
Loading at 16#034BC#
Loading at 16#03A98#
Loading at 16#04074#
Loading at 16#04650#
Loading at 16#04C2C#
Loading at 16#05208#
Loading at 16#057E4#
Loading at 16#05DC0#
Loading at 16#0639C#
Loading at 16#06978#
Loading at 16#06F54#
Loading at 16#07530#
Loading at 16#07B0C#
Loading at 16#080E8#
Loading at 16#086C4#
Loading at 16#08CA0#
Loading at 16#0927C#
Loading at 16#09858#
Loading at 16#09E34#
Loading at 16#0A410#
Loading at 16#0A9EC#
Loading at 16#0AFC8#
Loading at 16#0B5A4#
Loading at 16#0BB80#
Loading at 16#0C15C#
Loading at 16#0C738#
Loading at 16#0CD14#
Loading at 16#0D2F0#
Loading at 16#0D8CC#
Loading at 16#0DEA8#
Loading at 16#0E484#
Loading at 16#0EA60#
Loading at 16#0F03C#
Loading at 16#0F618#
Loading at 16#0FBF4#
Loading MMUSOHO.trb
Loading MMUSOHO.dbg
Breakpoint 1 at GES_SET_PU/JSECT ( 16#0000# )
Action: HALT execution
Breakpoint already set at location.
2=> !
2=> ! e /hex GES_SET_PU . VPES_ROM_Checksum_LSB
16#1FFF#: 16#29BA#
2=> ! e /hex GES_SET_PU . VPES_ROM_Checksum
16#1FFE#: 16#148D#
2=> !
2=> ! e /hex GES_SET_PU . VPES_Software_Ident_1
16#1FFC#: 16#CBCB#
2=> ! e /hex GES_SET_PU . VPES_Software_Ident_2
16#1FFD#: 16#101#
2=> !
2=> ! SPECIAL MPS$CONNECT PROGRAMMED INPUT 256 port100.in

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2=> ! SPECIAL MPS$CONNECT PROGRAMMED INPUT 272 port110.in
2=> ! SPECIAL MPS$CONNECT PROGRAMMED INPUT 304 port130.in
2=> ! SPECIAL MPS$CONNECT PROGRAMMED INPUT 312 port138.in
2=> ! SPECIAL MPS$CONNECT PROGRAMMED INPUT 376 port178.in
2=> ! SPECIAL MPS$CONNECT PROGRAMMED OUTPUT 256 port100.out
2=> ! SPECIAL MPS$CONNECT PROGRAMMED OUTPUT 336 port150.out
2=> ! SPECIAL MPS$CONNECT PROGRAMMED OUTPUT 352 port160.out
2=> ! SPECIAL MPS$CONNECT PROGRAMMED OUTPUT 360 port168.out
2=> ! SPECIAL MPS$CONNECT PROGRAMMED OUTPUT 288 port120.out
2=> ! SPECIAL MPS$CONNECT PROGRAMMED OUTPUT 289 port121.out
2=> ! SPECIAL MPS$CONNECT PROGRAMMED OUTPUT 290 port122.out
2=> ! SPECIAL MPS$CONNECT PROGRAMMED OUTPUT 291 port123.out
2=> ! SPECIAL MPS$CONNECT PROGRAMMED OUTPUT 292 port124.out
2=> ! SPECIAL MPS$CONNECT PROGRAMMED OUTPUT 293 port125.out
2=> ! SPECIAL MPS$CONNECT PROGRAMMED OUTPUT 294 port126.out
2=> ! SPECIAL MPS$CONNECT PROGRAMMED OUTPUT 295 port127.out
2=> ! SPECIAL MPS$CONNECT PROGRAMMED OUTPUT 296 port128.out
2=> ! SPECIAL MPS$CONNECT PROGRAMMED OUTPUT 344 port158.out
2=> ! SPECIAL MPS$CONNECT PROGRAMMED OUTPUT 320 port140.out
2=> ! SPECIAL MPS$CONNECT PROGRAMMED OUTPUT 328 port148.out
2=> ! SPECIAL MPS$CONNECT PROGRAMMED OUTPUT 392 port188.out
2=> ! SPECIAL MPS$CONNECT PROGRAMMED OUTPUT 544 port220.out
2=> ! SPECIAL MPS$CONNECT PROGRAMMED OUTPUT 384 port180.out
2=>
2=> ! set event /io/continue 16#180#
2=> ! set event /io/continue 16#220#
2=> ! set event /io/continue 16#188#
2=> ! set event /io/continue 16#148#
2=> ! set event /io/continue 16#140#
2=> ! set event /io/continue 16#158#
2=> ! set event /io/continue 16#128#
2=> ! set event /io/continue 16#120#
2=> ! set event /io/continue 16#168#
2=> ! set event /io/continue 16#160#
2=> ! set event /io/continue 16#150#
2=> ! set event /io/continue 16#100#
2=> !
2=> ! set event /io/continue 16#8100#
2=> ! set event /io/continue 16#8110#
2=> ! set event /io/continue 16#8130#
2=> ! set event /io/continue 16#8138#
2=> ! set event /io/continue 16#8178#
2=> !
2=> !
2=> ! set break GEI_IT . PEI01
Breakpoint 2 at GEI_IT.PEI01 ( 16#0BF8# )
    Action: HALT execution
2=> ! set break GEI_IT . PEI02
Breakpoint 3 at GEI_IT.PEI02 ( 16#1010# )
    Action: HALT execution
2=> ! set break GEI_IT . PEI03
Breakpoint 4 at GEI_IT.PEI03 ( 16#0C27# )
    Action: HALT execution
2=> ! set break GEI_IT . PEI04
Breakpoint 5 at GEI_IT.PEI04 ( 16#0C4D# )
    Action: HALT execution
2=> ! set break GEI_IT . PEI05
Breakpoint 6 at GEI_IT.PEI05 ( 16#0C73# )
    Action: HALT execution
2=> !
2=> ! set break GEI_IT . IEI05_END - 2
Breakpoint 7 at GEI_IT.IEI05_END-2 ( 16#0CDA# )
    Action: HALT execution
1=> !
1=> ! m /type=def_global_gen.T_Word dump_record_DMA . Register_Selection := 0
1=> ! m /type=def_global_gen.T_Word dump_record_DMA . next_pointer := 0
1=> ! m /type=def_global_gen.T_Word dump_record_DMA . Current_physical_unit := 0
1=> ! m /type=def_global_gen.T_Word dump_record_DMA . Next_physical_unit := 0
1=> ! @print_dump_rec_param.cmd
2=> ! e modes . mode
( 16#0DA8# ) MODES.MODE: KG_MODE_STANDBY
2=> ! e dump_record_DMA . Begin_Of_Stack_Detection
( 16#0DD6# ) DUMP_RECORD_DMA.BEGIN_OF_STACK_DETECTION: KG_NO
2=> ! e dump_record_DMA . End_Of_Stack_Detection
( 16#0DD7# ) DUMP_RECORD_DMA.END_OF_STACK_DETECTION: KG_NO
2=> ! e dump_record_DMA . Standby_Exec_Status
( 16#0DD9# ) DUMP_RECORD_DMA.STANDBY_EXEC_STATUS: KG_NO_EXEC

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2=> ! e /hex dump_record_DMA . Current_Pointer
16#0DD2#: 16#0#
2=> ! e /hex dump_record_DMA . Current_physical_unit
16#0DD3#: 16#0#
2=> ! e /hex dump_record_DMA . Next_Pointer
16#0DD4#: 16#0#
2=> ! e /hex dump_record_DMA . Next_physical_unit
16#0DD5#: 16#0#
2=> ! e dump_record_DMA . register_Selection
( 16#0DD8# ) DUMP_RECORD_DMA.REGISTER_SELECTION: KG_REG_0
2=> ! e /hex statistics . statistics_table
16#0DCD#: 16#0#
16#0DCE#: 16#0#
16#0DCF#: 16#0#
16#0DD0#: 16#0#
16#0DD1#: 16#0#
2=> ! e memory_units.Correcting_Table
( 16#0DB6# ) MEMORY_UNITS.CORRECTING_TABLE:
( 0 => 0,           1 => 1,           2 => 2,           3 => 3,
  4 => 4,           5 => 5,           6 => 6,           7 => 7,
  8 => 8,           9 => 9,           10 => 10,          11 => 11,
  12 => 12,          13 => 13,          14 => 14,          15 => 15 )
2=> !
2=> ! e /type=tm_parameters.T_ST1 tm_parameters.tm_Buffer (0)
( 16#0DAC# ) TM_PARAMETERS.T_ST1:
  MODE => KG_MODE_STANDBY
  TUGGLE_BIT => 0
  PROTECTION_STATUS => KG_PROTECTION_ENABLED
  SCRUBBING_STATUS => KG_SCRUBBING_ENABLED
  SCRUBBING_BANK => 0
  CHANNEL => KG_CHANNEL_1
  TM_MODE => KG_TM_MODE_NORMAL
  TC_MODE => KG_TC_MODE_NORMAL
  OPERATIONAL_ERROR_STATUS => KG_NORMAL
2=> ! e /type=tm_parameters.T_ST2_0 tm_parameters.tm_Buffer (1)
( 16#0DAD# ) TM_PARAMETERS.T_ST2_0:
  PHYSICAL_UNIT => 0
  LOGICAL_POINTER => 0
2=> ! e /hex tm_parameters.tm_buffer
16#0DAC#: 16#2000#
16#0DAD#: 16#0#
16#0DAE#: 16#0#
16#0DAF#: 16#0#
16#0DB0#: 16#0#
16#0DB1#: 16#0#
16#0DB2#: 16#0#
16#0DB3#: 16#0#
16#0DB4#: 16#0#
1=> ! @TM_Request.cmd
2=> ! m /hex \pi := 0010
%TLDBG-E-TASKSYM - Task symbol \SCEDULER.CURRENT_TASK\ not found in symbol table
Proc 1 HALTED Inst Count:*801860 Clock:*0.992_004_1
R0: *60B0 *0000 *0160 *0000 *03E0 *1FF7 *0000 *0000 IC: *00EF MK: *60B0 SW: *4000
R8: *0000 *0000 *0000 *0000 *0000 *0000 *0000 *1FFA PI: *0010 SU: *0 TSK: *0000
2=> ! go /wait
%TLDBG-E-TASKSYM - Task symbol \SCEDULER.CURRENT_TASK\ not found in symbol table
Proc 1 HALTED Inst Count:*801861 Clock:*0.992_005_3
R0: 60B0 0000 0160 0000 03E0 1FF7 0000 0000 IC: *0C73 MK: *20A0 SW: *0000
R8: 0000 0000 0000 0000 0000 0000 0000 1FF8 PI: *0000 SU: 0 TSK: 0000
BP taken at GEI_IT/ISELECT1+16#4C#: STI R15, 16#E49#
2=> ! go /wait
IO Event: 16#8100#
IO Event occurred at INPUT_OUTPUT.READ_IO_REGISTER._28: XIO R2, 16#0#, R4 (PI)
IO Event: 16#120#
IO Event occurred at INPUT_OUTPUT.WRITE_IO_REGISTER._35: XIO R4, 16#0#, R2 (PO)
IO Event: 16#128#
IO Event occurred at INPUT_OUTPUT.WRITE_IO_REGISTER._35: XIO R4, 16#0#, R2 (PO)
%TLDBG-E-TASKSYM - Task symbol \SCEDULER.CURRENT_TASK\ not found in symbol table
Proc 1 HALTED Inst Count:*802117 Clock:*0.992_657_35
R0: 60B0 0000 0160 0000 03E0 1FF7 0000 0000 IC: *0CDA MK: *0000 SW: *4000
R8: 0000 0000 0000 0000 0000 0000 0000 1FF8 PI: 0000 SU: 0 TSK: 0000
BP taken at GEI_IT/ISELECT1+16#B3#: LST 16#DE1#
2=> ! go/wait=2
2=> ! halt
%TLDBG-E-TASKSYM - Task symbol \SCEDULER.CURRENT_TASK\ not found in symbol table
Proc 1 HALTED Inst Count:*831317 Clock:*1.033_029_85
R0: 60B0 0000 *0000 *05B4 03E0 1FF7 0000 0000 IC: *011C MK: *60B0 SW: 4000

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R8: 0000 0000 0000 0000 0000 *7FFF 0000 1FF8 PI: 0000 SU: 0 TSK: 0000
Halted at MODES.BACKGROUND_TASK_ACTIVATION._137+16#2#: BR
MODES.BACKGROUND_TASK_ACTIVATION._123
1=> !
1=> !
1=> !
1=> !
1=> !
1=> ! m modes . mode := KG_Mode_Record
1=> ! m /type=tm_parameters.T_ST1 tm_parameters.tm_buffer (0) := (Mode => KG_Mode_Record)
1=> ! m /hex tm_parameters.tm_Buffer (1) := 0FFF
1=> ! m /hex dump_record_DMA . Current_pointer := FFF
1=> ! m /hex dump_record_DMA . next_pointer := FAA
1=> ! m /hex dump_record_DMA . Current_physical_unit := 0
1=> ! m /hex dump_record_DMA . Next_physical_unit := 1
1=> ! m dump_record_DMA . End_Of_Stack_Detection := KG_YES
1=> ! m dump_record_DMA . Register_Selection := KG_REG_0
1=> ! m /hex statistics . statistics_Table (0) := FFFF
1=> ! m /hex statistics . statistics_Table (1) := FFFD
1=> ! m /hex statistics . statistics_Table (2) := FFFF
1=> ! m /hex statistics . statistics_Table (3) := FFFD
1=> ! m /hex statistics . statistics_Table (4) := 1235
1=> !
1=> ! @Receive_End_Dump_Record_IT.cmd
2=> ! m /hex \pi := 2000
%TLDBG-E-TASKSYM - Task symbol \SCEDULER.CURRENT_TASK\ not found in symbol table
Proc 1 HALTED Inst Count: 831317 Clock: 1.033_029_85
R0: 60B0 0000 0000 05B4 03E0 1FF7 0000 0000 IC: 011C MK: 60B0 SW: 4000
R8: 0000 0000 0000 0000 0000 7FFF 0000 1FF8 PI: *2000 SU: 0 TSK: 0000
2=> ! go /wait
%TLDBG-E-TASKSYM - Task symbol \SCEDULER.CURRENT_TASK\ not found in symbol table
Proc 1 HALTED Inst Count: *831318 Clock: *1.033_031_35
R0: 60B0 0000 0000 05B4 03E0 1FF7 0000 0000 IC: *1010 MK: *0000 SW: *0000
R8: 0000 0000 0000 0000 0000 7FFF 0000 1FF8 PI: *0000 SU: 0 TSK: 0000
BP taken at GEI_IT/ISECTM1: STI R15,16#E49#
1=> ! set break modes . end_dump_record_request'end
Breakpoint 8 at MODES.END_DUMP_RECORD_REQUEST'END ( 16#008C# )
Action: HALT execution
1=> ! go /wait
IO Event: 16#158#
IO Event occurred at INPUT_OUTPUT.WRITE_IO_REGISTER._35: XIO R4,16#0#,R2 (PO)
%TLDBG-E-TASKSYM - Task symbol \SCEDULER.CURRENT_TASK\ not found in symbol table
Proc 1 HALTED Inst Count: *831386 Clock: *1.033_165_9
R0: *4000 *0002 0000 *2000 *E000 1FF7 0000 0000 IC: *008C MK: *4000 SW: *4000
R8: 0000 0000 0000 0000 0000 7FFF 0000 *1FF4 PI: 0000 SU: 0 TSK: 0000
BP taken at MODES.END_DUMP_RECORD_REQUEST._54: LIM R15,16#3#,R15
1=> !
1=> ! e modes.end_dump_record_request.completion_Status
( 16#0.1FF40# ) MODES.END_DUMP_RECORD_REQUEST.COMPLETION_STATUS: KG_COMPLETED
1=> ! go /wait
%TLDBG-E-TASKSYM - Task symbol \SCEDULER.CURRENT_TASK\ not found in symbol table
Proc 1 HALTED Inst Count: *831404 Clock: *1.033_204_1
R0: *60B0 *0000 0000 *05B4 *03E0 1FF7 0000 0000 IC: *0CDA MK: *0000 SW: 4000
R8: 0000 0000 0000 0000 0000 7FFF 0000 *1FF8 PI: 0000 SU: 0 TSK: 0000
BP taken at GEI_IT/ISECT1+16#B3#: LST 16#DE1#
1=> !
1=> ! go /wait=2
1=> ! halt
%TLDBG-E-TASKSYM - Task symbol \SCEDULER.CURRENT_TASK\ not found in symbol table
Proc 1 HALTED Inst Count: *845004 Clock: *1.052_009_6
R0: 60B0 0000 0000 *085C 03E0 1FF7 0000 0000 IC: *011C MK: *60B0 SW: 4000
R8: 0000 0000 0000 0000 0000 7FFF 0000 1FF8 PI: 0000 SU: 0 TSK: 0000
Halted at MODES.BACKGROUND_TASK_ACTIVATION._137+16#2#: BR
MODES.BACKGROUND_TASK_ACTIVATION._123
1=> ! @print_dump_rec_param.cmd
2=> ! e modes . mode
( 16#0DA8# ) MODES.MODE: KG_MODE_STANDBY
2=> ! e dump_record_DMA . Begin_Of_Stack_Detection
( 16#0DD6# ) DUMP_RECORD_DMA.BEGIN_OF_STACK_DETECTION: KG_NO
2=> ! e dump_record_DMA . End_Of_Stack_Detection
( 16#0DD7# ) DUMP_RECORD_DMA.END_OF_STACK_DETECTION: KG_YES
2=> ! e dump_record_DMA . Standby_Exec_Status
( 16#0DD9# ) DUMP_RECORD_DMA.STANDBY_EXEC_STATUS: KG_NO_EXEC
2=> ! e /hex dump_record_DMA . Current_Pointer
16#0DD2#: 16#FFF#
2=> ! e /hex dump_record_DMA . Current_physical_unit
16#0DD3#: 16#0#

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2=> ! e /hex dump_record_DMA . Next_Pointer
16#0DD4#: 16#FAA#
2=> ! e /hex dump_record_DMA . Next_physical_unit
16#0DD5#: 16#1#
2=> ! e dump_record_DMA . register_Selection
( 16#0DD8# ) DUMP_RECORD_DMA.REGISTER_SELECTION: KG_REG_0
2=> ! e /hex statistics . statistics_table
16#0DCD#: 16#FFFF#
16#0DCE#: 16#FFFD#
16#0DCF#: 16#FFFF#
16#0DD0#: 16#FFFD#
16#0DD1#: 16#1235#
2=> ! e memory_units.Corresponding_Table
( 16#0DB6# ) MEMORY_UNITS.CORRESPONDING_TABLE:
( 0 => 0, 1 => 1, 2 => 2, 3 => 3,
  4 => 4, 5 => 5, 6 => 6, 7 => 7,
  8 => 8, 9 => 9, 10 => 10, 11 => 11,
  12 => 12, 13 => 13, 14 => 14, 15 => 15 )
2=> !
2=> ! e /type=tm_parameters.T_ST1 tm_parameters.tm_Buffer (0)
( 16#0DAC# ) TM_PARAMETERS.T_ST1:
    MODE => KG_MODE_STANDBY
    TUGGLE_BIT => 1
    PROTECTION_STATUS => KG_PROTECTION_ENABLED
    SCRUBBING_STATUS => KG_SCRUBBING_ENABLED
    SCRUBBING_BANK => 0
    CHANNEL => KG_CHANNEL_1
    TM_MODE => KG_TM_MODE_NORMAL
    TC_MODE => KG_TC_MODE_NORMAL
    OPERATIONAL_ERROR_STATUS => KG_NORMAL
2=> ! e /type=tm_parameters.T_ST2_0 tm_parameters.tm_Buffer (1)
( 16#0DAD# ) TM_PARAMETERS.T_ST2_0:
    PHYSICAL_UNIT => 0
    LOGICAL_POINTER => 4095
2=> ! e /hex tm_parameters.tm_buffer
16#0DAC#: 16#3000#
16#0DAD#: 16#FFF#
16#0DAE#: 16#0#
16#0DAF#: 16#0#
16#0DB0#: 16#0#
16#0DB1#: 16#0#
16#0DB2#: 16#0#
16#0DB3#: 16#0#
16#0DB4#: 16#0#
1=> !
1=> ! @TM_request.cmd
2=> ! m /hex \pi := 0010
%TLDBG-E-TASKSYM - Task symbol \SCHEDULER.CURRENT_TASK\ not found in symbol table
Proc 1 HALTED Inst Count: 845004 Clock: 1.052_009_6
R0: 60B0 0000 0000 085C 03E0 1FF7 0000 0000 IC: 011C MK: 60B0 SW: 4000
R8: 0000 0000 0000 0000 0000 7FFF 0000 1FF8 PI: *0010 SU: 0 TSK: 0000
2=> ! go /wait
%TLDBG-E-TASKSYM - Task symbol \SCHEDULER.CURRENT_TASK\ not found in symbol table
Proc 1 HALTED Inst Count: *845005 Clock: *1.052_011_1
R0: 60B0 0000 0000 085C 03E0 1FF7 0000 0000 IC: *0C73 MK: *20A0 SW: *0000
R8: 0000 0000 0000 0000 0000 7FFF 0000 1FF8 PI: *0000 SU: 0 TSK: 0000
BP taken at GEI_IT/ISELECT1+16#4C#: STI R15,16#E49#
2=> ! go /wait
IO Event: 16#8100#
IO Event occurred at INPUT_OUTPUT.READ_IO_REGISTER._28: XIO R2,16#0#,R4 (PI)
IO Event: 16#120#
IO Event occurred at INPUT_OUTPUT.WRITE_IO_REGISTER._35: XIO R4,16#0#,R2 (PO)
IO Event: 16#128#
IO Event occurred at INPUT_OUTPUT.WRITE_IO_REGISTER._35: XIO R4,16#0#,R2 (PO)
%TLDBG-E-TASKSYM - Task symbol \SCHEDULER.CURRENT_TASK\ not found in symbol table
Proc 1 HALTED Inst Count: *845260 Clock: *1.052_661_55
R0: 60B0 0000 0000 085C 03E0 1FF7 0000 0000 IC: *0CDA MK: *0000 SW: *4000
R8: 0000 0000 0000 0000 0000 7FFF 0000 1FF8 PI: 0000 SU: 0 TSK: 0000
BP taken at GEI_IT/ISELECT1+16#B3#: LST 16#DE1#
2=> ! go/wait=2
2=> ! halt
%TLDBG-E-TASKSYM - Task symbol \SCHEDULER.CURRENT_TASK\ not found in symbol table
Proc 1 HALTED Inst Count: *864460 Clock: *1.079_209_05
R0: 60B0 0000 0000 *0C1C 03E0 1FF7 0000 0000 IC: *011C MK: *60B0 SW: 4000
R8: 0000 0000 0000 0000 0000 7FFF 0000 1FF8 PI: 0000 SU: 0 TSK: 0000
Halted at MODES.BACKGROUND_TASK_ACTIVATION._137+16#2#: BR
MODES.BACKGROUND_TASK_ACTIVATION._123

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```

1=> !
1=> !
1=> !
1=> !
1=> !
1=> ! m modes . mode := KG_Mode_Record
1=> ! m /type=tm_parameters.T_ST1 tm_parameters.tm_buffer (0) := (Mode => KG_Mode_Record)
1=> ! m /hex tm_parameters.tm_Buffer (1) := 99FF
1=> ! m /hex dump_record_DMA . Current_pointer := 9FF
1=> ! m /hex dump_record_DMA . next_pointer := A00
1=> ! m /hex dump_record_DMA . Current_physical_unit := 9
1=> ! m /hex dump_record_DMA . Next_physical_unit := A
1=> ! m dump_record_DMA . End_Of_Stack_Detection := KG_NO
1=> ! m dump_record_DMA . Register_Selection := KG_REG_1
1=> ! m /hex statistics . statistics_Table (0) := FFDF
1=> ! m /hex statistics . statistics_Table (1) := FFFF
1=> ! m /hex statistics . statistics_Table (2) := FFDF
1=> ! m /hex statistics . statistics_Table (3) := FFFF
1=> ! m /hex statistics . statistics_Table (4) := 1235
1=> !
1=> ! @Receive_End_Dump_Record_IT.cmd
2=> ! m /hex \pi := 2000
%TLDBBG-E-TASKSYM - Task symbol \SCEDULER.CURRENT_TASK\ not found in symbol table
Proc 1 HALTED Inst Count: 864460 Clock: 1.079_209_05
R0: 60B0 0000 0000 0C1C 03E0 1FF7 0000 0000 IC: 011C MK: 60B0 SW: 4000
R8: 0000 0000 0000 0000 0000 7FFF 0000 1FF8 PI: *2000 SU: 0 TSK: 0000
2=> ! go /wait
%TLDBBG-E-TASKSYM - Task symbol \SCEDULER.CURRENT_TASK\ not found in symbol table
Proc 1 HALTED Inst Count: *864461 Clock: *1.079_210_55
R0: 60B0 0000 0000 0C1C 03E0 1FF7 0000 0000 IC: *1010 MK: *0000 SW: *0000
R8: 0000 0000 0000 0000 0000 7FFF 0000 1FF8 PI: *0000 SU: 0 TSK: 0000
BP taken at GEI_IT/ISECTM1: STI R15,16#E49#
1=> ! set break modes . end_dump_record_request'end
Breakpoint already set at location.
1=> ! go /wait
IO Event: 16#8100#
IO Event occurred at INPUT_OUTPUT.READ_IO_REGISTER._28: XIO R2,16#0#,R4 (PI)
IO Event: 16#148#
IO Event occurred at INPUT_OUTPUT.WRITE_IO_REGISTER._35: XIO R4,16#0#,R2 (PO)
%TLDBBG-E-TASKSYM - Task symbol \SCEDULER.CURRENT_TASK\ not found in symbol table
Proc 1 HALTED Inst Count: *864632 Clock: *1.079_510_6
R0: *4000 *000A *0001 *F000 *0FFF *0A00 *0F00 0000 IC: *008C MK: *4000 SW: *4000
R8: 0000 0000 0000 0000 0000 *0000 0000 *1FF4 PI: 0000 SU: 0 TSK: 0000
BP taken at MODES.END_DUMP_RECORD_REQUEST._54: LIM R15,16#3#,R15
1=> !
1=> ! e modes.end_dump_record_request.completion_Status
( 16#0.1FF40# ) MODES.END_DUMP_RECORD_REQUEST.COMPLETION_STATUS: KG_NOT_COMPLETED
1=> ! go /wait
%TLDBBG-E-TASKSYM - Task symbol \SCEDULER.CURRENT_TASK\ not found in symbol table
Proc 1 HALTED Inst Count: *864650 Clock: *1.079_548_8
R0: *60B0 *0000 *0000 *0C1C *03E0 *1FF7 *0000 0000 IC: *0CDA MK: *0000 SW: 4000
R8: 0000 0000 0000 0000 0000 *7FFF 0000 *1FF8 PI: 0000 SU: 0 TSK: 0000
BP taken at GEI_IT/ISECT1+16#B3#: LST 16#DE1#
1=> !
1=> ! go /wait=2
1=> ! halt
%TLDBBG-E-TASKSYM - Task symbol \SCEDULER.CURRENT_TASK\ not found in symbol table
Proc 1 HALTED Inst Count: *895450 Clock: *1.122_133_3
R0: 60B0 0000 0000 *1220 03E0 1FF7 0000 0000 IC: *011C MK: *60B0 SW: 4000
R8: 0000 0000 0000 0000 0000 7FFF 0000 1FF8 PI: 0000 SU: 0 TSK: 0000
Halted at MODES.BACKGROUND_TASK_ACTIVATION._137+16#2#: BR
MODES.BACKGROUND_TASK_ACTIVATION._123
1=> ! @print_dump_rec_param.cmd
2=> ! e modes . mode
( 16#0DA8# ) MODES.MODE: KG_MODE_RECORD
2=> ! e dump_record_DMA . Begin_Of_Stack_Detection
( 16#0DD6# ) DUMP_RECORD_DMA.BEGIN_OF_STACK_DETECTION: KG_NO
2=> ! e dump_record_DMA . End_Of_Stack_Detection
( 16#0DD7# ) DUMP_RECORD_DMA.END_OF_STACK_DETECTION: KG_NO
2=> ! e dump_record_DMA . Standby_Exec_Status
( 16#0DD9# ) DUMP_RECORD_DMA.STANDBY_EXEC_STATUS: KG_NO_EXEC
2=> ! e /hex dump_record_DMA . Current_Pointer
16#0DD2#: 16#A00#
2=> ! e /hex dump_record_DMA . Current_physical_unit
16#0DD3#: 16#A#
2=> ! e /hex dump_record_DMA . Next_Pointer
16#0DD4#: 16#A01#

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2=> ! e /hex dump_record_DMA . Next_physical_unit
16#0DD5#: 16#A#
2=> ! e dump_record_DMA . register_Selection
( 16#0DD8# ) DUMP_RECORD_DMA.REGISTER_SELECTION: KG_REG_0
2=> ! e /hex statistics . statistics_table
16#0DCD#: 16#FFDF#
16#0DCE#: 16#FFFF#
16#0DCF#: 16#FFDF#
16#0DD0#: 16#FFFF#
16#0DD1#: 16#1235#
2=> ! e memory_units.Corresponding_Table
( 16#0DB6# ) MEMORY_UNITS.CORRESPONDING_TABLE:
( 0 => 0, 1 => 1, 2 => 2, 3 => 3,
  4 => 4, 5 => 5, 6 => 6, 7 => 7,
  8 => 8, 9 => 9, 10 => 10, 11 => 11,
  12 => 12, 13 => 13, 14 => 14, 15 => 15 )
2=> !
2=> ! e /type=tm_parameters.T_ST1 tm_parameters.tm_Buffer (0)
( 16#0DAC# ) TM_PARAMETERS.T_ST1:
    MODE => KG_MODE_RECORD
    TUGGLE_BIT => 0
    PROTECTION_STATUS => KG_PROTECTION_ENABLED
    SCRUBBING_STATUS => KG_SCRUBBING_ENABLED
    SCRUBBING_BANK => 0
    CHANNEL => KG_CHANNEL_1
    TM_MODE => KG_TM_MODE_NORMAL
    TC_MODE => KG_TC_MODE_NORMAL
    OPERATIONAL_ERROR_STATUS => KG_NORMAL
2=> ! e /type=tm_parameters.T_ST2_0 tm_parameters.tm_Buffer (1)
( 16#0DAD# ) TM_PARAMETERS.T_ST2_0:
    PHYSICAL_UNIT => 10
    LOGICAL_POINTER => 2560
2=> ! e /hex tm_parameters.tm_buffer
16#0DAD#: 16#8000#
16#0DAD#: 16#AA00#
16#0DAE#: 16#0#
16#0DAF#: 16#0#
16#0DB0#: 16#0#
16#0DB1#: 16#0#
16#0DB2#: 16#0#
16#0DB3#: 16#0#
16#0DB4#: 16#0#
1=> !
1=> ! @TM_request.cmd
2=> ! m /hex \pi := 0010
%TLDBG-E-TASKSYM - Task symbol \SCEDULER.CURRENT_TASK\ not found in symbol table
Proc 1 HALTED Inst Count: 895450 Clock: 1.122_133_3
R0: 60B0 0000 0000 1220 03E0 1FF7 0000 0000 IC: 011C MK: 60B0 SW: 4000
R8: 0000 0000 0000 0000 7FFF 0000 1FF8 PI: *0010 SU: 0 TSK: 0000
2=> ! go /wait
%TLDBG-E-TASKSYM - Task symbol \SCEDULER.CURRENT_TASK\ not found in symbol table
Proc 1 HALTED Inst Count: *895451 Clock: *1.122_134_8
R0: 60B0 0000 0000 1220 03E0 1FF7 0000 0000 IC: *0C73 MK: *20A0 SW: *0000
R8: 0000 0000 0000 0000 7FFF 0000 1FF8 PI: *0000 SU: 0 TSK: 0000
BP taken at GEI_IT/ISELECT1+16#4C#: STI R15,16#E49#
2=> ! go /wait
IO Event: 16#8100#
IO Event occurred at INPUT_OUTPUT.READ_IO_REGISTER._28: XIO R2,16#0#,R4 (PI)
IO Event: 16#120#
IO Event occurred at INPUT_OUTPUT.WRITE_IO_REGISTER._35: XIO R4,16#0#,R2 (PO)
IO Event: 16#128#
IO Event occurred at INPUT_OUTPUT.WRITE_IO_REGISTER._35: XIO R4,16#0#,R2 (PO)
%TLDBG-E-TASKSYM - Task symbol \SCEDULER.CURRENT_TASK\ not found in symbol table
Proc 1 HALTED Inst Count: *895707 Clock: *1.122_786_85
R0: 60B0 0000 0000 1220 03E0 1FF7 0000 0000 IC: *0CDA MK: *0000 SW: *4000
R8: 0000 0000 0000 0000 7FFF 0000 1FF8 PI: 0000 SU: 0 TSK: 0000
BP taken at GEI_IT/ISELECT1+16#B3#: LST 16#DE1#
2=> ! go/wait=2
2=> ! halt
%TLDBG-E-TASKSYM - Task symbol \SCEDULER.CURRENT_TASK\ not found in symbol table
Proc 1 HALTED Inst Count: *912507 Clock: *1.146_016_35
R0: 60B0 0000 0000 *1568 03E0 1FF7 0000 0000 IC: *011C MK: *60B0 SW: 4000
R8: 0000 0000 0000 0000 7FFF 0000 1FF8 PI: 0000 SU: 0 TSK: 0000
Halted at MODES.BACKGROUND_TASK_ACTIVATION._137+16#2#: BR
MODES.BACKGROUND_TASK_ACTIVATION._123
1=> !
1=> !

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```

1=> !
1=> !
1=> !
1=> !
1=> !
1=> !
1=> !
1=> ! m memory_units.corresponding_table (0) := 15
1=> ! m memory_units.corresponding_table (1) := 14
1=> ! m memory_units.corresponding_table (2) := 13
1=> ! m memory_units.corresponding_table (3) := 12
1=> ! m memory_units.corresponding_table (4) := 11
1=> ! m memory_units.corresponding_table (5) := 10
1=> ! m memory_units.corresponding_table (6) := 9
1=> ! m memory_units.corresponding_table (7) := 8
1=> ! m memory_units.corresponding_Table (8) := 7
1=> ! m memory_units.corresponding_table (9) := 6
1=> ! m memory_units.corresponding_Table (10) := 5
1=> ! m memory_units.corresponding_table (11) := 4
1=> ! m memory_units.corresponding_table (12) := 3
1=> ! m memory_units.corresponding_table (13) := 2
1=> ! m memory_units.corresponding_table (14) := 1
1=> ! m memory_units.corresponding_table (15) := 0
1=> ! m modes . mode := KG_Mode_Record
1=> ! m /type=tm_parameters.T_ST1 tm_parameters.tm_buffer (0) := (Mode => KG_Mode_Record)
1=> ! m /hex tm_parameters.tm_Buffer (1) := 0584
1=> ! m /hex dump_record_DMA . Current_pointer := 584
1=> ! m /hex dump_record_DMA . next_pointer := 585
1=> ! m /hex dump_record_DMA . Current_physical_unit := 0
1=> ! m /hex dump_record_DMA . Next_physical_unit := A
1=> ! m dump_record_DMA . End_Of_Stack_Detection := KG_NO
1=> ! m dump_record_DMA . Register_Selection := KG_REG_0
1=> ! m /hex statistics . statistics_Table (0) := 0000
1=> ! m /hex statistics . statistics_Table (1) := 0000
1=> ! m /hex statistics . statistics_Table (2) := 0000
1=> ! m /hex statistics . statistics_Table (3) := 0000
1=> ! m /hex statistics . statistics_Table (4) := 1235
1=> !
1=> ! @Receive_End_Dump_Record_IT.cmd
2=> ! m /hex \pi := 2000
%TLDBG-E-TASKSYM - Task symbol \SCEDULER.CURRENT_TASK\ not found in symbol table
Proc 1 HALTED Inst Count: 912507 Clock: 1.146_016_35
R0: 60B0 0000 0000 1568 03E0 1FFF 0000 0000 IC: 011C MK: 60B0 SW: 4000
R8: 0000 0000 0000 0000 0000 7FFF 0000 1FF8 PI: *2000 SU: 0 TSK: 0000
2=> ! go /wait
%TLDBG-E-TASKSYM - Task symbol \SCEDULER.CURRENT_TASK\ not found in symbol table
Proc 1 HALTED Inst Count: *912508 Clock: *1.146_017_85
R0: 60B0 0000 0000 1568 03E0 1FFF 0000 0000 IC: *1010 MK: *0000 SW: *0000
R8: 0000 0000 0000 0000 0000 7FFF 0000 1FF8 PI: *0000 SU: 0 TSK: 0000
BP taken at GEI_IT/ISECTM1: STI R15,16#E49#
1=> ! set break modes . end_dump_record_request'end
Breakpoint already set at location.
1=> ! go /wait
IO Event: 16#8100#
IO Event occurred at INPUT_OUTPUT.READ_IO_REGISTER._28: XIO R2,16#0#,R4 (PI)
IO Event: 16#140#
IO Event occurred at INPUT_OUTPUT.WRITE_IO_REGISTER._35: XIO R4,16#0#,R2 (PO)
%TLDBG-E-TASKSYM - Task symbol \SCEDULER.CURRENT_TASK\ not found in symbol table
Proc 1 HALTED Inst Count: *912680 Clock: *1.146_319_5
R0: *4000 *000A *0001 *F000 *0FFF *0A00 *0F00 0000 IC: *008C MK: *4000 SW: *4000
R8: 0000 0000 0000 0000 0000 *0000 0000 *1FF4 PI: 0000 SU: 0 TSK: 0000
BP taken at MODES.END_DUMP_RECORD_REQUEST._54: LIM R15,16#3#,R15
1=> !
1=> ! e modes.end_dump_record_request.completion_Status
( 16#0.1FF40# ) MODES.END_DUMP_RECORD_REQUEST.COMPLETION_STATUS: KG_NOT_COMPLETED
1=> ! go /wait
%TLDBG-E-TASKSYM - Task symbol \SCEDULER.CURRENT_TASK\ not found in symbol table
Proc 1 HALTED Inst Count: *912698 Clock: *1.146_357_7
R0: *60B0 *0000 *0000 *1568 *03E0 *1FFF *0000 0000 IC: *0CDA MK: *0000 SW: 4000
R8: 0000 0000 0000 0000 0000 *7FFF 0000 *1FF8 PI: 0000 SU: 0 TSK: 0000
BP taken at GEI_IT/ISECT1+16#B3#: LST 16#DE1#
1=> !
1=> ! go /wait=2
1=> ! halt
%TLDBG-E-TASKSYM - Task symbol \SCEDULER.CURRENT_TASK\ not found in symbol table
Proc 1 HALTED Inst Count: *929698 Clock: *1.169_863_7
R0: 60B0 0000 0000 *18BA 03E0 1FFF 0000 0000 IC: *011C MK: *60B0 SW: 4000

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R8: 0000 0000 0000 0000 7FFF 0000 1FF8 PI: 0000 SU: 0 TSK: 0000
Halted at MODES.BACKGROUND_TASK_ACTIVATION._137+16#2#: BR
MODES.BACKGROUND_TASK_ACTIVATION._123
1=> ! @print_dump_rec_param.cmd
2=> ! e modes . mode
( 16#0DA8# ) MODES.MODE: KG_MODE_RECORD
2=> ! e dump_record_DMA . Begin_Of_Stack_Detection
( 16#0DD6# ) DUMP_RECORD_DMA.BEGIN_OF_STACK_DETECTION: KG_NO
2=> ! e dump_record_DMA . End_Of_Stack_Detection
( 16#0DD7# ) DUMP_RECORD_DMA.END_OF_STACK_DETECTION: KG_NO
2=> ! e dump_record_DMA . Standby_Exec_Status
( 16#0DD9# ) DUMP_RECORD_DMA.STANDBY_EXEC_STATUS: KG_NO_EXEC
2=> ! e /hex dump_record_DMA . Current_Pointer
16#0DD2#: 16#585#
2=> ! e /hex dump_record_DMA . Current_physical_unit
16#0DD3#: 16#A#
2=> ! e /hex dump_record_DMA . Next_Pointer
16#0DD4#: 16#586#
2=> ! e /hex dump_record_DMA . Next_physical_unit
16#0DD5#: 16#A#
2=> ! e dump_record_DMA . register_Selection
( 16#0DD8# ) DUMP_RECORD_DMA.REGISTER_SELECTION: KG_REG_1
2=> ! e /hex statistics . statistics_table
16#0DCD#: 16#0#
16#0DCE#: 16#0#
16#0DCF#: 16#0#
16#0DD0#: 16#0#
16#0DD1#: 16#1235#
2=> ! e memory_units.Corresponding_Table
( 16#0DB6# ) MEMORY_UNITS.CORRESPONDING_TABLE:
( 0 => 15, 1 => 14, 2 => 13, 3 => 12,
  4 => 11, 5 => 10, 6 => 9, 7 => 8,
  8 => 7, 9 => 6, 10 => 5, 11 => 4,
  12 => 3, 13 => 2, 14 => 1, 15 => 0 )
2=> !
2=> ! e /type=tm_parameters.T_ST1 tm_parameters.tm_Buffer (0)
( 16#0DAC# ) TM_PARAMETERS.T_ST1:
    MODE => KG_MODE_RECORD
    TUGGLE_BIT => 1
    PROTECTION_STATUS => KG_PROTECTION_ENABLED
    SCRUBBING_STATUS => KG_SCRUBBING_ENABLED
    SCRUBBING_BANK => 0
    CHANNEL => KG_CHANNEL_1
    TM_MODE => KG_TM_MODE_NORMAL
    TC_MODE => KG_TC_MODE_NORMAL
    OPERATIONAL_ERROR_STATUS => KG_NORMAL
2=> ! e /type=tm_parameters.T_ST2_0 tm_parameters.tm_Buffer (1)
( 16#0DAD# ) TM_PARAMETERS.T_ST2_0:
    PHYSICAL_UNIT => 10
    LOGICAL_POINTER => 1413
2=> ! e /hex tm_parameters.tm_buffer
16#0DAC#: 16#9000#
16#0DAD#: 16#A585#
16#0DAE#: 16#0#
16#0DAF#: 16#0#
16#0DB0#: 16#0#
16#0DB1#: 16#0#
16#0DB2#: 16#0#
16#0DB3#: 16#0#
16#0DB4#: 16#0#
1=> !
1=> ! @TM_request.cmd
2=> ! m /hex \pi := 0010

%TLDBBG-E-TASKSYM - Task symbol \SCEDULER.CURRENT_TASK\ not found in symbol table
Proc 1 HALTED Inst Count: 929698 Clock: 1.169_863_7
R0: 60B0 0000 0000 18BA 03E0 1FF7 0000 0000 IC: 011C MK: 60B0 SW: 4000
R8: 0000 0000 0000 0000 0000 7FFF 0000 1FF8 PI: *0010 SU: 0 TSK: 0000
2=> ! go /wait
%TLDBBG-E-TASKSYM - Task symbol \SCEDULER.CURRENT_TASK\ not found in symbol table
Proc 1 HALTED Inst Count: *929699 Clock: *1.169_865_2
R0: 60B0 0000 0000 18BA 03E0 1FF7 0000 0000 IC: *0C73 MK: *20A0 SW: *0000
R8: 0000 0000 0000 0000 0000 7FFF 0000 1FF8 PI: *0000 SU: 0 TSK: 0000
BP taken at GEI_IT/ISELECT1+16#4C#: STI R15, 16#E49#
2=> ! go /wait
IO Event: 16#8100#
IO Event occurred at INPUT_OUTPUT.READ_IO_REGISTER._28: XIO R2, 16#0#, R4 (PI)

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1=> ! e modes.end_dump_record_request.completion_Status
( 16#0.1FF40# ) MODES.END_DUMP_RECORD_REQUEST.COMPLETION_STATUS: KG_NOT_COMPLETED
1=> ! go /wait
%TLDBG-E-TASKSYM - Task symbol \SCEDULER.CURRENT_TASK\ not found in symbol table
Proc 1 HALTED Inst Count:*946450 Clock:*1.193_350_7
R0: *60B0 0000 0000 *1BEE *03E0 1FFF 0000 0000 IC:*0CDA MK:*0000 SW: 4000
R8: 0000 0000 0000 0000 0000 *7FFF 0000 *1FF8 PI: 0000 SU: 0 TSK: 0000
BP taken at GEI_IT/ISELECT1+16#B3#: LST 16#DE1#
1=> !
1=> ! go /wait=2
1=> ! halt

%TLDBG-E-TASKSYM - Task symbol \SCEDULER.CURRENT_TASK\ not found in symbol table
Proc 1 HALTED Inst Count:*960250 Clock:*1.212_432_7
R0: 60B0 0000 0000 *1EA0 03E0 1FFF 0000 0000 IC:*011C MK:*60B0 SW: 4000
R8: 0000 0000 0000 0000 0000 7FFF 0000 1FF8 PI: 0000 SU: 0 TSK: 0000
Halted at MODES.BACKGROUND_TASK_ACTIVATION._137+16#2#: BR
MODES.BACKGROUND_TASK_ACTIVATION._123
1=> ! @print_dump_rec_param.cmd
2=> ! e modes . mode
( 16#0DA8# ) MODES.MODE: KG_MODE_RECORD
2=> ! e dump_record_DMA . Begin_Of_Stack_Detection
( 16#0DD6# ) DUMP_RECORD_DMA.BEGIN_OF_STACK_DETECTION: KG_NO
2=> ! e dump_record_DMA . End_Of_Stack_Detection
( 16#0DD7# ) DUMP_RECORD_DMA.END_OF_STACK_DETECTION: KG_YES
2=> ! e dump_record_DMA . Standby_Exec_Status
( 16#0DD9# ) DUMP_RECORD_DMA.STANDBY_EXEC_STATUS: KG_NO_EXEC
2=> ! e /hex dump_record_DMA . Current_Pointer
16#0DD2#: 16#FFF#
2=> ! e /hex dump_record_DMA . Current_physical_unit
16#0DD3#: 16#F#
2=> ! e /hex dump_record_DMA . Next_Pointer
16#0DD4#: 16#FFF#
2=> ! e /hex dump_record_DMA . Next_physical_unit
16#0DD5#: 16#F#
2=> ! e dump_record_DMA . register_Selection
( 16#0DD8# ) DUMP_RECORD_DMA.REGISTER_SELECTION: KG_REG_0
2=> ! e /hex statistics . statistics_table
16#0DCD#: 16#7FFF#
16#0DCE#: 16#FFFF#
16#0DCF#: 16#7FFF#
16#0DD0#: 16#FFFF#
16#0DD1#: 16#1235#
2=> ! e memory_units.Corresponding_Table
( 16#0DB6# ) MEMORY_UNITS.CORRESPONDING_TABLE:
( 0 => 0, 1 => 1, 2 => 2, 3 => 3,
  4 => 4, 5 => 5, 6 => 6, 7 => 7,
  8 => 8, 9 => 9, 10 => 10, 11 => 11,
  12 => 12, 13 => 13, 14 => 14, 15 => 15 )
2=> !
2=> ! e /type=tm_parameters.T_ST1 tm_parameters.tm_Buffer (0)
( 16#0DAC# ) TM_PARAMETERS.T_ST1:
    MODE => KG_MODE_RECORD
    TUGGLE_BIT => 0
    PROTECTION_STATUS => KG_PROTECTION_ENABLED
    SCRUBBING_STATUS => KG_SCRUBBING_ENABLED
    SCRUBBING_BANK => 0
    CHANNEL => KG_CHANNEL_1
    TM_MODE => KG_TM_MODE_NORMAL
    TC_MODE => KG_TC_MODE_NORMAL
    OPERATIONAL_ERROR_STATUS => KG_NORMAL
2=> ! e /type=tm_parameters.T_ST2_0 tm_parameters.tm_Buffer (1)
( 16#0DAD# ) TM_PARAMETERS.T_ST2_0:
    PHYSICAL_UNIT => 15
    LOGICAL_POINTER => 4095
2=> ! e /hex tm_parameters.tm_buffer
16#0DAC#: 16#8000#
16#0DAD#: 16#FFFF#
16#0DAE#: 16#0#
16#0DAF#: 16#0#
16#0DB0#: 16#0#
16#0DB1#: 16#0#
16#0DB2#: 16#0#
16#0DB3#: 16#0#
16#0DB4#: 16#0#
1=> !
1=> ! @TM_request.cmd

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2=> ! m /hex \pi := 0010
%TLDBG-E-TASKSYM - Task symbol \SCEDULER.CURRENT_TASK\ not found in symbol table
Proc 1 HALTED Inst Count: 960250 Clock: 1.212_432_7
R0: 60B0 0000 0000 1EA0 03E0 1FF7 0000 0000 IC: 011C MK: 60B0 SW: 4000
R8: 0000 0000 0000 0000 0000 7FFF 0000 1FF8 PI: *0010 SU: 0 TSK: 0000
2=> ! go /wait
%TLDBG-E-TASKSYM - Task symbol \SCEDULER.CURRENT_TASK\ not found in symbol table
Proc 1 HALTED Inst Count: *960251 Clock: *1.212_434_2
R0: 60B0 0000 0000 1EA0 03E0 1FF7 0000 0000 IC: *0C73 MK: *20A0 SW: *0000
R8: 0000 0000 0000 0000 0000 7FFF 0000 1FF8 PI: *0000 SU: 0 TSK: 0000
BP taken at GEI_IT/ISELECT1+16#4C#: STI R15,16#E49#
2=> ! go /wait
IO Event: 16#8100#
IO Event occurred at INPUT_OUTPUT.READ_IO_REGISTER._28: XIO R2,16#0#,R4 (PI)
IO Event: 16#120#
IO Event occurred at INPUT_OUTPUT.WRITE_IO_REGISTER._35: XIO R4,16#0#,R2 (PO)
IO Event: 16#128#
IO Event occurred at INPUT_OUTPUT.WRITE_IO_REGISTER._35: XIO R4,16#0#,R2 (PO)
%TLDBG-E-TASKSYM - Task symbol \SCEDULER.CURRENT_TASK\ not found in symbol table
Proc 1 HALTED Inst Count: *960507 Clock: *1.213_086_25
R0: 60B0 0000 0000 1EA0 03E0 1FF7 0000 0000 IC: *0CDA MK: *0000 SW: *4000
R8: 0000 0000 0000 0000 0000 7FFF 0000 1FF8 PI: 0000 SU: 0 TSK: 0000
BP taken at GEI_IT/ISELECT1+16#B3#: LST 16#DE1#
2=> ! go/wait=2
2=> ! halt
%TLDBG-E-TASKSYM - Task symbol \SCEDULER.CURRENT_TASK\ not found in symbol table
Proc 1 HALTED Inst Count: *984507 Clock: *1.246_269_75
R0: 60B0 0000 0000 *2350 03E0 1FF7 0000 0000 IC: *011C MK: *60B0 SW: 4000
R8: 0000 0000 0000 0000 0000 7FFF 0000 1FF8 PI: 0000 SU: 0 TSK: 0000
Halted at MODES.BACKGROUND_TASK_ACTIVATION._137+16#2#: BR
MODES.BACKGROUND_TASK_ACTIVATION._123
1=> !
1=> !
1=> !
1=> !
1=> !
1=> !
1=> ! m modes . mode := KG_Mode_Record
1=> ! m /type=tm_parameters.T_ST1 tm_parameters.tm_Buffer (0) := (Mode => KG_Mode_Record)
1=> ! m /hex tm_parameters.tm_Buffer (1) := AA10
1=> ! m /hex dump_record_DMA . Current_pointer := A10
1=> ! m /hex dump_record_DMA . next_pointer := A11
1=> ! m /hex dump_record_DMA . Current_physical_unit := A
1=> ! m /hex dump_record_DMA . Next_physical_unit := A
1=> ! m dump_record_DMA . End_Of_Stack_Detection := KG_NO
1=> ! m dump_record_DMA . Register_Selection := KG_REG_1
1=> ! m /hex statistics . statistics_Table (0) := 0000
1=> ! m /hex statistics . statistics_Table (1) := 0800
1=> ! m /hex statistics . statistics_Table (2) := FFFF
1=> ! m /hex statistics . statistics_Table (3) := F7FF
1=> ! m /hex statistics . statistics_Table (4) := 00FC
1=> !
1=> ! @Receive_End_Dump_Record_IT.cmd
2=> ! m /hex \pi := 2000
%TLDBG-E-TASKSYM - Task symbol \SCEDULER.CURRENT_TASK\ not found in symbol table
Proc 1 HALTED Inst Count: 984507 Clock: 1.246_269_75
R0: 60B0 0000 0000 2350 03E0 1FF7 0000 0000 IC: 011C MK: 60B0 SW: 4000
R8: 0000 0000 0000 0000 0000 7FFF 0000 1FF8 PI: *2000 SU: 0 TSK: 0000
2=> ! go /wait
%TLDBG-E-TASKSYM - Task symbol \SCEDULER.CURRENT_TASK\ not found in symbol table
Proc 1 HALTED Inst Count: *984508 Clock: *1.246_271_25
R0: 60B0 0000 0000 2350 03E0 1FF7 0000 0000 IC: *1010 MK: *0000 SW: *0000
R8: 0000 0000 0000 0000 0000 7FFF 0000 1FF8 PI: *0000 SU: 0 TSK: 0000
BP taken at GEI_IT/ISELECTM1: STI R15,16#E49#
1=> ! set break modes . end_dump_record_request'end
Breakpoint already set at location.
1=> ! go /wait
IO Event: 16#8100#
IO Event occurred at INPUT_OUTPUT.READ_IO_REGISTER._28: XIO R2,16#0#,R4 (PI)
IO Event: 16#8100#
IO Event occurred at INPUT_OUTPUT.READ_IO_REGISTER._28: XIO R2,16#0#,R4 (PI)
IO Event: 16#148#
IO Event occurred at INPUT_OUTPUT.WRITE_IO_REGISTER._35: XIO R4,16#0#,R2 (PO)
%TLDBG-E-TASKSYM - Task symbol \SCEDULER.CURRENT_TASK\ not found in symbol table
Proc 1 HALTED Inst Count: *984744 Clock: *1.246_683_75
R0: *4000 *000B *0001 *F000 *0FFF *0B00 *0F00 0000 IC: *008C MK: *4000 SW: *4000
R8: 0000 0000 0000 0000 0000 *0000 0000 *1FF4 PI: 0000 SU: 0 TSK: 0000

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BP taken at MODES.END_DUMP_RECORD_REQUEST._54: LIM      R15,16#3#,R15
1=> !
1=> ! e modes.end_dump_record_request.completion_Status
( 16#0.1FF4o# ) MODES.END_DUMP_RECORD_REQUEST.COMPLETION_STATUS: KG_NOT_COMPLETED
1=> ! go /wait
%TLDBG-E-TASKSYM - Task symbol \SCHEDULER.CURRENT_TASK\ not found in symbol table
Proc 1 HALTED Inst Count:*984762 Clock:*1.246_721_95
R0: *60B0 0000 0000 *2350 03E0 *1FFF 0000 0000 IC:*0CDA MK:*0000 SW: 4000
R8: 0000 0000 0000 0000 0000 *7FFF 0000 *1FF8 PI: 0000 SU: 0 TSK: 0000
BP taken at GEI_IT/ISELECT1+16#B3#: LST 16#DE1#
1=> !
1=> ! go /wait=2
1=> ! halt
%TLDBG-E-TASKSYM - Task symbol \SCHEDULER.CURRENT_TASK\ not found in symbol table
Proc 1 HALTED Inst Count:*1005162 Clock:*1.274_928_45
R0: 60B0 0000 0000 *274C 03E0 1FFF 0000 0000 IC:*011C MK:*60B0 SW: 4000
R8: 0000 0000 0000 0000 7FFF 0000 1FF8 PI: 0000 SU: 0 TSK: 0000
Halted at MODES.BACKGROUND_TASK_ACTIVATION._137+16#2#: BR
MODES.BACKGROUND_TASK_ACTIVATION._123
1=> ! @print_dump_rec_param.cmd
2=> ! e modes . mode
( 16#0DA8# ) MODES.MODE: KG_MODE_RECORD
2=> ! e dump_record_DMA . Begin_Of_Stack_Detection
( 16#0DD6# ) DUMP_RECORD_DMA.BEGIN_OF_STACK_DETECTION: KG_NO
2=> ! e dump_record_DMA . End_Of_Stack_Detection
( 16#0DD7# ) DUMP_RECORD_DMA.END_OF_STACK_DETECTION: KG_NO
2=> ! e dump_record_DMA . Standby_Exec_Status
( 16#0DD9# ) DUMP_RECORD_DMA.STANDBY_EXEC_STATUS: KG_NO_EXEC
2=> ! e /hex dump_record_DMA . Current_Pointer
16#0DD2#: 16#A11#
2=> ! e /hex dump_record_DMA . Current_physical_unit
16#0DD3#: 16#A#
2=> ! e /hex dump_record_DMA . Next_Pointer

16#0DD4#: 16#B00#
2=> ! e /hex dump_record_DMA . Next_physical_unit
16#0DD5#: 16#B#
2=> ! e dump_record_DMA . register_Selection
( 16#0DD8# ) DUMP_RECORD_DMA.REGISTER_SELECTION: KG_REG_0
2=> ! e /hex statistics . statistics_table
16#0DCD#: 16#0#
16#0DCE#: 16#800#
16#0DCF#: 16#FFFF#
16#0DD0#: 16#F7FF#
16#0DD1#: 16#FC#
2=> ! e memory_units.Corresponding_Table
( 16#0DB6# ) MEMORY_UNITS.CORRESPONDING_TABLE:
( 0 => 0, 1 => 1, 2 => 2, 3 => 3,
  4 => 4, 5 => 5, 6 => 6, 7 => 7,
  8 => 8, 9 => 9, 10 => 10, 11 => 11,
  12 => 12, 13 => 13, 14 => 14, 15 => 15 )
2=> !
2=> ! e /type=tm_parameters.T_ST1 tm_parameters.tm_Buffer (0)
( 16#0DAC# ) TM_PARAMETERS.T_ST1:
    MODE => KG_MODE_RECORD
    TUGGLE_BIT => 1
    PROTECTION_STATUS => KG_PROTECTION_ENABLED
    SCRUBBING_STATUS => KG_SCRUBBING_ENABLED
    SCRUBBING_BANK => 0
    CHANNEL => KG_CHANNEL_1
    TM_MODE => KG_TM_MODE_NORMAL
    TC_MODE => KG_TC_MODE_NORMAL
    OPERATIONAL_ERROR_STATUS => KG_NORMAL
2=> ! e /type=tm_parameters.T_ST2_0 tm_parameters.tm_Buffer (1)
( 16#0DAD# ) TM_PARAMETERS.T_ST2_0:
    PHYSICAL_UNIT => 10
    LOGICAL_POINTER => 2577
2=> ! e /hex tm_parameters.tm_buffer
16#0DAC#: 16#9000#
16#0DAD#: 16#AA11#
16#0DAE#: 16#0#
16#0DAF#: 16#0#
16#0DB0#: 16#0#
16#0DB1#: 16#0#
16#0DB2#: 16#0#
16#0DB3#: 16#0#
16#0DB4#: 16#0#

```



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1=> !
1=> ! @TM_request.cmd
2=> ! m /hex \pi := 0010
%TLDBG-E-TASKSYM - Task symbol \SCHEDULER.CURRENT_TASK\ not found in symbol table
Proc 1 HALTED Inst Count: 1005162 Clock: 1.274_928_45
R0: 60B0 0000 0000 274C 03E0 1FF7 0000 0000 IC: 011C MK: 60B0 SW: 4000
R8: 0000 0000 0000 0000 0000 7FFF 0000 1FF8 PI: *0010 SU: 0 TSK: 0000
2=> ! go /wait
%TLDBG-E-TASKSYM - Task symbol \SCHEDULER.CURRENT_TASK\ not found in symbol table
Proc 1 HALTED Inst Count: *1005163 Clock: *1.274_929_95
R0: 60B0 0000 0000 274C 03E0 1FF7 0000 0000 IC: *0C73 MK: *20A0 SW: *0000
R8: 0000 0000 0000 0000 0000 7FFF 0000 1FF8 PI: *0000 SU: 0 TSK: 0000
BP taken at GEI_IT/ISELECT1+16#4C#: STI R15,16#E49#
2=> ! go /wait
IO Event: 16#8100#
IO Event occurred at INPUT_OUTPUT.READ_IO_REGISTER._28: XIO R2,16#0#,R4 (PI)
IO Event: 16#120#
IO Event occurred at INPUT_OUTPUT.WRITE_IO_REGISTER._35: XIO R4,16#0#,R2 (PO)
IO Event: 16#128#
IO Event occurred at INPUT_OUTPUT.WRITE_IO_REGISTER._35: XIO R4,16#0#,R2 (PO)
%TLDBG-E-TASKSYM - Task symbol \SCHEDULER.CURRENT_TASK\ not found in symbol table
Proc 1 HALTED Inst Count: *1005418 Clock: *1.275_580_4
R0: 60B0 0000 0000 274C 03E0 1FF7 0000 0000 IC: *0CDA MK: *0000 SW: *4000
R8: 0000 0000 0000 0000 0000 7FFF 0000 1FF8 PI: 0000 SU: 0 TSK: 0000
BP taken at GEI_IT/ISELECT1+16#B3#: LST 16#DE1#
2=> ! go/await=2
2=> ! halt
%TLDBG-E-TASKSYM - Task symbol \SCHEDULER.CURRENT_TASK\ not found in symbol table
Proc 1 HALTED Inst Count: *1022618 Clock: *1.299_362_9
R0: 60B0 0000 0000 *2AA8 03E0 1FF7 0000 0000 IC: *011C MK: *60B0 SW: 4000
R8: 0000 0000 0000 0000 0000 7FFF 0000 1FF8 PI: 0000 SU: 0 TSK: 0000
Halted at MODES.BACKGROUND_TASK_ACTIVATION._137+16#2#: BR
MODES.BACKGROUND_TASK_ACTIVATION._123
1=> !
1=> !
1=> !
1=> !
1=> !
1=> !
1=> ! m modes . mode := KG_Mode_Record
1=> ! m /type=tm_parameters.T_ST1 tm_parameters.tm_buffer (0) := (Mode => KG_Mode_Record)
1=> ! m /hex tm_parameters.tm_Buffer (1) := FF15
1=> ! m /hex dump_record_DMA . Current_pointer := F15
1=> ! m /hex dump_record_DMA . next_pointer := F16
1=> ! m /hex dump_record_DMA . Current_physical_unit := F
1=> ! m /hex dump_record_DMA . Next_physical_unit := F
1=> ! m dump_record_DMA . End_Of_Stack_Detection := KG_NO
1=> ! m dump_record_DMA . Register_Selection := KG_REG_0
1=> ! m /hex statistics . statistics_Table (0) := 0000
1=> ! m /hex statistics . statistics_Table (1) := 0000
1=> ! m /hex statistics . statistics_Table (2) := 0000
1=> ! m /hex statistics . statistics_Table (3) := 0000
1=> ! m /hex statistics . statistics_Table (4) := 0000
1=> !
1=> ! @Receive_End_Dump_Record_IT.cmd
2=> ! m /hex \pi := 2000
%TLDBG-E-TASKSYM - Task symbol \SCHEDULER.CURRENT_TASK\ not found in symbol table
Proc 1 HALTED Inst Count: 1022618 Clock: 1.299_362_9
R0: 60B0 0000 0000 2AA8 03E0 1FF7 0000 0000 IC: 011C MK: 60B0 SW: 4000
R8: 0000 0000 0000 0000 0000 7FFF 0000 1FF8 PI: *2000 SU: 0 TSK: 0000
2=> ! go /wait
%TLDBG-E-TASKSYM - Task symbol \SCHEDULER.CURRENT_TASK\ not found in symbol table
Proc 1 HALTED Inst Count: *1022619 Clock: *1.299_364_4
R0: 60B0 0000 0000 2AA8 03E0 1FF7 0000 0000 IC: *1010 MK: *0000 SW: *0000
R8: 0000 0000 0000 0000 0000 7FFF 0000 1FF8 PI: *0000 SU: 0 TSK: 0000
BP taken at GEI_IT/ISELECT1: STI R15,16#E49#
1=> ! set break modes . end_dump_record_request'end
Breakpoint already set at location.
1=> ! go /wait
IO Event: 16#8100#
IO Event occurred at INPUT_OUTPUT.READ_IO_REGISTER._28: XIO R2,16#0#,R4 (PI)
%TLDBG-E-TASKSYM - Task symbol \SCHEDULER.CURRENT_TASK\ not found in symbol table
Proc 1 HALTED Inst Count: *1022773 Clock: *1.299_616_05
R0: *4000 *000F *0001 *F000 *0FFF *1FE1 *1FEE 0000 IC: *008C MK: *4000 SW: *4000
R8: 0000 0000 0000 0000 0000 *0001 0000 *1FF4 PI: 0000 SU: 0 TSK: 0000
BP taken at MODES.END DUMP RECORD REQUEST. 54: LIM R15,16#3#,R15

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1=> !
1=> ! e modes.end_dump_record_request.completion_Status
( 16#0.1FF40# ) MODES.END_DUMP_RECORD_REQUEST.COMPLETION_STATUS: KG_NOT_COMPLETED
1=> ! go /wait
%TLDBBG-E-TASKSYM - Task symbol \SCEDULER.CURRENT_TASK\ not found in symbol table
Proc 1 HALTED Inst Count:*1022791 Clock:*1.299_654_25
R0: *60B0 *0000 *0000 *2AA8 *03E0 *1FF7 *0000 0000 IC:*0CDA MK:*0000 SW: 4000
R8: 0000 0000 0000 0000 0000 *7FFF 0000 *1FF8 PI: 0000 SU: 0 TSK: 0000
BP taken at GEI_IT/ISECT1+16#B3#: LST 16#DE1#
1=> !
1=> ! go /wait=2
1=> ! halt
%TLDBBG-E-TASKSYM - Task symbol \SCEDULER.CURRENT_TASK\ not found in symbol table
Proc 1 HALTED Inst Count:*1039791 Clock:*1.323_160_25
R0: 60B0 0000 0000 *2DFA 03E0 1FF7 0000 0000 IC:*011C MK:*60B0 SW: 4000
R8: 0000 0000 0000 0000 0000 7FFF 0000 1FF8 PI: 0000 SU: 0 TSK: 0000
Halted at MODES.BACKGROUND_TASK_ACTIVATION._137+16#2#: BR
MODES.BACKGROUND_TASK_ACTIVATION._123
1=> ! @print_dump_rec_param.cmd
2=> ! e modes . mode
( 16#0DA8# ) MODES.MODE: KG_MODE_RECORD
2=> ! e dump_record_DMA . Begin_Of_Stack_Detection
( 16#0DD6# ) DUMP_RECORD_DMA.BEGIN_OF_STACK_DETECTION: KG_NO
2=> ! e dump_record_DMA . End_Of_Stack_Detection
( 16#0DD7# ) DUMP_RECORD_DMA.END_OF_STACK_DETECTION: KG_YES
2=> ! e dump_record_DMA . Standby_Exec_Status
( 16#0DD9# ) DUMP_RECORD_DMA.STANDBY_EXEC_STATUS: KG_NO_EXEC
2=> ! e /hex dump_record_DMA . Current_Pointer
16#0DD2#: 16#F16#
2=> ! e /hex dump_record_DMA . Current_physical_unit
16#0DD3#: 16#F#
2=> ! e /hex dump_record_DMA . Next_Pointer
16#0DD4#: 16#F17#
2=> ! e /hex dump_record_DMA . Next_physical_unit
16#0DD5#: 16#F#
2=> ! e dump_record_DMA . register_Selection
( 16#0DD8# ) DUMP_RECORD_DMA.REGISTER_SELECTION: KG_REG_1
2=> ! e /hex statistics . statistics_table
16#0DCD#: 16#0#
16#0DCE#: 16#0#
16#0DCF#: 16#0#
16#0DD0#: 16#0#
16#0DD1#: 16#0#
2=> ! e memory_units.Corresponding_Table
( 16#0DB6# ) MEMORY_UNITS.CORRESPONDING_TABLE:
( 0 => 0, 1 => 1, 2 => 2, 3 => 3,
  4 => 4, 5 => 5, 6 => 6, 7 => 7,
  8 => 8, 9 => 9, 10 => 10, 11 => 11,
  12 => 12, 13 => 13, 14 => 14, 15 => 15 )
2=> !
2=> ! e /type=tm_parameters.T_ST1 tm_parameters.tm_Buffer (0)

( 16#0DAC# ) TM_PARAMETERS.T_ST1:
    MODE => KG_MODE_RECORD
    TUGGLE_BIT => 0
    PROTECTION_STATUS => KG_PROTECTION_ENABLED
    SCRUBBING_STATUS => KG_SCRUBBING_ENABLED
    SCRUBBING_BANK => 0
    CHANNEL => KG_CHANNEL_1
    TM_MODE => KG_TM_MODE_NORMAL
    TC_MODE => KG_TC_MODE_NORMAL
    OPERATIONAL_ERROR_STATUS => KG_NORMAL
2=> ! e /type=tm_parameters.T_ST2_0 tm_parameters.tm_Buffer (1)
( 16#0DAD# ) TM_PARAMETERS.T_ST2_0:
    PHYSICAL_UNIT => 15
    LOGICAL_POINTER => 3862
2=> ! e /hex tm_parameters.tm_buffer
16#0DAD#: 16#8000#
16#0DAD#: 16#FF16#
16#0DAE#: 16#0#
16#0DAF#: 16#0#
16#0DB0#: 16#0#
16#0DB1#: 16#0#
16#0DB2#: 16#0#
16#0DB3#: 16#20#
16#0DB4#: 16#0#
1=> !

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2=> ! go /wait
%TLDBG-E-TASKSYM - Task symbol \SCEDULER.CURRENT_TASK\ not found in symbol table
Proc 1 HALTED Inst Count:*1063849 Clock:*1.356_722_3
R0: 60B0 0000 0000 32A0 03E0 1FF7 0000 0000 IC:*1010 MK:*0000 SW:*0000
R8: 0000 0000 0000 0000 0000 7FFF 0000 1FF8 PI:*0000 SU: 0 TSK: 0000
BP taken at GEI_IT/ISELECTM1: STI R15,16#E49#
1=> ! set break modes . end_dump_record_request'end
Breakpoint already set at location.
1=> ! go /wait
%TLDBG-E-TASKSYM - Task symbol \SCEDULER.CURRENT_TASK\ not found in symbol table
Proc 1 HALTED Inst Count:*1063926 Clock:*1.356_840_7
R0:*4000 0000 *0001 *F000 *0FFF 1FF7 0000 0000 IC:*008C MK:*4000 SW:*4000
R8: 0000 0000 0000 0000 *0001 0000 *1FF4 PI: 0000 SU: 0 TSK: 0000
BP taken at MODES.END_DUMP_RECORD_REQUEST._54: LIM R15,16#3#,R15
1=> !
1=> ! e modes.end_dump_record_request.completion_Status
( 16#0.1FF40# ) MODES.END_DUMP_RECORD_REQUEST.COMPLETION_STATUS: KG_NOT_COMPLETED
1=> ! go /wait
%TLDBG-E-TASKSYM - Task symbol \SCEDULER.CURRENT_TASK\ not found in symbol table
Proc 1 HALTED Inst Count:*1063944 Clock:*1.356_878_9
R0:*60B0 0000 *0000 *32A0 *03E0 1FF7 0000 0000 IC:*0CDA MK:*0000 SW: 4000
R8: 0000 0000 0000 0000 *7FFF 0000 *1FF8 PI: 0000 SU: 0 TSK: 0000
BP taken at GEI_IT/ISELECT1+16#B3#: LST 16#DE1#
1=> !
1=> ! go /wait=2
1=> ! halt
%TLDBG-E-TASKSYM - Task symbol \SCEDULER.CURRENT_TASK\ not found in symbol table
Proc 1 HALTED Inst Count:*1084344 Clock:*1.385_085_4
R0: 60B0 0000 0000 *369C 03E0 1FF7 0000 0000 IC:*011C MK:*60B0 SW: 4000
R8: 0000 0000 0000 0000 7FFF 0000 1FF8 PI: 0000 SU: 0 TSK: 0000
Halted at MODES.BACKGROUND_TASK_ACTIVATION._137+16#2#: BR
MODES.BACKGROUND_TASK_ACTIVATION._123
1=> ! @print_dump_rec_param.cmd
2=> ! e modes . mode
( 16#0DA8# ) MODES.MODE: KG_MODE_RECORD
2=> ! e dump_record_DMA . Begin_Of_Stack_Detection
( 16#0DD6# ) DUMP_RECORD_DMA.BEGIN_OF_STACK_DETECTION: KG_NO
2=> ! e dump_record_DMA . End_Of_Stack_Detection
( 16#0DD7# ) DUMP_RECORD_DMA.END_OF_STACK_DETECTION: KG_NO
2=> ! e dump_record_DMA . Standby_Exec_Status
( 16#0DD9# ) DUMP_RECORD_DMA.STANDBY_EXEC_STATUS: KG_EXEC
2=> ! e /hex dump_record_DMA . Current_Pointer
16#0DD2#: 16#F00#
2=> ! e /hex dump_record_DMA . Current_physical_unit
16#0DD3#: 16#0#
2=> ! e /hex dump_record_DMA . Next_Pointer
16#0DD4#: 16#F00#
2=> ! e /hex dump_record_DMA . Next_physical_unit
16#0DD5#: 16#0#
2=> ! e dump_record_DMA . register_Selection
( 16#0DD8# ) DUMP_RECORD_DMA.REGISTER_SELECTION: KG_REG_1
2=> ! e /hex statistics . statistics_table
16#0DCD#: 16#FFFF#
16#0DCE#: 16#FFFD#
16#0DCF#: 16#FFFF#
16#0DD0#: 16#FFFD#
16#0DD1#: 16#1234#
2=> ! e memory_units.Corresponding_Table
( 16#0DB6# ) MEMORY_UNITS.CORRESPONDING_TABLE:
( 0 => 15, 1 => 14, 2 => 13, 3 => 12,
  4 => 11, 5 => 10, 6 => 9, 7 => 8,
  8 => 7, 9 => 6, 10 => 5, 11 => 4,
  12 => 3, 13 => 2, 14 => 1, 15 => 0 )
2=> !
2=> ! e /type=tm_parameters.T_ST1 tm_parameters.tm_Buffer (0)
( 16#0DAC# ) TM_PARAMETERS.T_ST1:
    MODE => KG_MODE_RECORD
    TUGGLE_BIT => 1
    PROTECTION_STATUS => KG_PROTECTION_ENABLED
    SCRUBBING_STATUS => KG_SCRUBBING_ENABLED
    SCRUBBING_BANK => 0
    CHANNEL => KG_CHANNEL_1
    TM_MODE => KG_TM_MODE_NORMAL
    TC_MODE => KG_TC_MODE_NORMAL
    OPERATIONAL_ERROR_STATUS => KG_NORMAL
2=> ! e /type=tm_parameters.T_ST2_0 tm_parameters.tm_Buffer (1)
( 16#0DAD# ) TM_PARAMETERS.T_ST2_0:

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PHYSICAL_UNIT => 0
LOGICAL_POINTER => 3840
2=> ! e /hex tm_parameters.tm_buffer
16#0DAC#: 16#9000#
16#0DAD#: 16#F00#
16#0DAE#: 16#0#
16#0DAF#: 16#0#
16#0DB0#: 16#0#
16#0DB1#: 16#0#
16#0DB2#: 16#0#
16#0DB3#: 16#1#
16#0DB4#: 16#0#
1=> !
1=> ! @TM_request.cmd
2=> ! m /hex \pi := 0010
%TLDBBG-E-TASKSYM - Task symbol \SCEDULER.CURRENT_TASK\ not found in symbol table
Proc 1 HALTED Inst Count: 1084344 Clock: 1.385_085_4
R0: 60B0 0000 0000 369C 03E0 1FF7 0000 0000 IC: 011C MK: 60B0 SW: 4000
R8: 0000 0000 0000 0000 0000 7FFF 0000 1FF8 PI: *0010 SU: 0 TSK: 0000
2=> ! go /wait
%TLDBBG-E-TASKSYM - Task symbol \SCEDULER.CURRENT_TASK\ not found in symbol table
Proc 1 HALTED Inst Count: *1084345 Clock: *1.385_086_9
R0: 60B0 0000 0000 369C 03E0 1FF7 0000 0000 IC: *0C73 MK: *20A0 SW: *0000
R8: 0000 0000 0000 0000 0000 7FFF 0000 1FF8 PI: *0000 SU: 0 TSK: 0000
BP taken at GEI_IT/ISELECT1+16#4C#: STI R15,16#E49#
2=> ! go /wait
IO Event: 16#8100#
IO Event occurred at INPUT_OUTPUT.READ_IO_REGISTER._28: XIO R2,16#0#,R4 (PI)
IO Event: 16#120#
IO Event occurred at INPUT_OUTPUT.WRITE_IO_REGISTER._35: XIO R4,16#0#,R2 (PO)
IO Event: 16#128#
IO Event occurred at INPUT_OUTPUT.WRITE_IO_REGISTER._35: XIO R4,16#0#,R2 (PO)
%TLDBBG-E-TASKSYM - Task symbol \SCEDULER.CURRENT_TASK\ not found in symbol table
Proc 1 HALTED Inst Count: *1084600 Clock: *1.385_737_35
R0: 60B0 0000 0000 369C 03E0 1FF7 0000 0000 IC: *0CDA MK: *0000 SW: *4000
R8: 0000 0000 0000 0000 0000 7FFF 0000 1FF8 PI: 0000 SU: 0 TSK: 0000
BP taken at GEI_IT/ISELECT1+16#B3#: LST 16#DE1#
2=> ! go/wait=2
2=> ! halt
%TLDBBG-E-TASKSYM - Task symbol \SCEDULER.CURRENT_TASK\ not found in symbol table
Proc 1 HALTED Inst Count: *1105200 Clock: *1.414_220_35
R0: 60B0 0000 0000 *3AA2 03E0 1FF7 0000 0000 IC: *011C MK: *60B0 SW: 4000
R8: 0000 0000 0000 0000 0000 7FFF 0000 1FF8 PI: 0000 SU: 0 TSK: 0000
Halted at MODES.BACKGROUND_TASK_ACTIVATION._137+16#2#: BR
MODES.BACKGROUND_TASK_ACTIVATION._123
1=> !
1=> !
1=> !
1=> !
1=> !
1=> !
1=> !
1=> !
1=> ! m modes . mode := KG_Mode_Standby
1=> ! m /type=tm_parameters.T_ST1 tm_parameters.tm_buffer (0) := (Mode => KG_Mode_Standby)
1=> ! m /hex tm_parameters.tm_Buffer (1) := 1EFF
1=> ! m /hex dump_record_DMA . Current_pointer := EFF
1=> ! m /hex dump_record_DMA . next_pointer := F00
1=> ! m /hex dump_record_DMA . Current_physical_unit := 1
1=> ! m /hex dump_record_DMA . Next_physical_unit := 0
1=> ! m dump_record_DMA . End_Of_Stack_Detection := KG_NO
1=> ! m dump_record_DMA . Register_Selection := KG_REG_0
1=> ! m dump_record_DMA . Standby_Exec_Status := KG_NO_EXEC
1=> ! m /hex statistics . statistics_Table (0) := FFFF
1=> ! m /hex statistics . statistics_Table (1) := FFFD
1=> ! m /hex statistics . statistics_Table (2) := FFFF
1=> ! m /hex statistics . statistics_Table (3) := FFFD
1=> ! m /hex statistics . statistics_Table (4) := 1234
1=> !
1=> ! @Receive_End_Dump_Record_IT.cmd
2=> ! m /hex \pi := 2000
%TLDBBG-E-TASKSYM - Task symbol \SCEDULER.CURRENT_TASK\ not found in symbol table
Proc 1 HALTED Inst Count: 1105200 Clock: 1.414_220_35
R0: 60B0 0000 0000 3AA2 03E0 1FF7 0000 0000 IC: 011C MK: 60B0 SW: 4000
R8: 0000 0000 0000 0000 0000 7FFF 0000 1FF8 PI: *2000 SU: 0 TSK: 0000
2=> ! go /wait
%TLDBBG-E-TASKSYM - Task symbol \SCEDULER.CURRENT_TASK\ not found in symbol table
Proc 1 HALTED Inst Count: *1105201 Clock: *1.414_221_85

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R0: 60B0 0000 0000 3AA2 03E0 1FF7 0000 0000 IC:*1010 MK:*0000 SW:*0000
R8: 0000 0000 0000 0000 0000 7FFF 0000 1FF8 PI:*0000 SU: 0 TSK: 0000
BP taken at GEI_IT/ISECTM1: STI R15,16#E49#
1=> ! set break modes . end_dump_record_request'end
Breakpoint already set at location.
1=> ! go /wait
%TLDBG-E-TASKSYM - Task symbol \SCHEDULER.CURRENT_TASK\ not found in symbol table
Proc 1 HALTED Inst Count:*1105234 Clock:*1.414_277_7
R0:*4000 *0002 *0001 *0002 03E0 1FF7 0000 0000 IC:*008C MK:*4000 SW:*4000
R8: 0000 0000 0000 0000 0000 7FFF 0000 *1FF4 PI: 0000 SU: 0 TSK: 0000
BP taken at MODES.END_DUMP_RECORD_REQUEST._54: LIM R15,16#3#,R15
1=> !
1=> ! go /wait=2
%TLDBG-E-TASKSYM - Task symbol \SCHEDULER.CURRENT_TASK\ not found in symbol table
Proc 1 HALTED Inst Count:*1105252 Clock:*1.414_315_9
R0:*60B0 *0000 *0000 *3AA2 03E0 1FF7 0000 0000 IC:*0CDA MK:*0000 SW: 4000
R8: 0000 0000 0000 0000 0000 7FFF 0000 *1FF8 PI: 0000 SU: 0 TSK: 0000
BP taken at GEI_IT/ISECT1+16#B3#: LST 16#DE1#
1=> ! halt
%TLDBG-E-TASKSYM - Task symbol \SCHEDULER.CURRENT_TASK\ not found in symbol table
Proc 1 HALTED Inst Count: 1105252 Clock: 1.414_315_9
R0: 60B0 0000 0000 3AA2 03E0 1FF7 0000 0000 IC: 0CDA MK: 0000 SW: 4000
R8: 0000 0000 0000 0000 0000 7FFF 0000 1FF8 PI: 0000 SU: 0 TSK: 0000
Halted at GEI_IT/ISECT1+16#B3#: LST 16#DE1#
1=> ! @print_dump_rec_param.cmd
2=> ! e modes . mode
( 16#0DA8# ) MODES.MODE: KG_MODE_STANDBY
2=> ! e dump_record_DMA . Begin_Of_Stack_Detection
( 16#0DD6# ) DUMP_RECORD_DMA.BEGIN_OF_STACK_DETECTION: KG_NO
2=> ! e dump_record_DMA . End_Of_Stack_Detection
( 16#0DD7# ) DUMP_RECORD_DMA.END_OF_STACK_DETECTION: KG_NO
2=> ! e dump_record_DMA . Standby_Exec_Status
( 16#0DD9# ) DUMP_RECORD_DMA.STANDBY_EXEC_STATUS: KG_NO_EXEC
2=> ! e /hex dump_record_DMA . Current_Pointer
16#0DD2#: 16#EFF#
2=> ! e /hex dump_record_DMA . Current_physical_unit
16#0DD3#: 16#1#
2=> ! e /hex dump_record_DMA . Next_Pointer
16#0DD4#: 16#FOO#
2=> ! e /hex dump_record_DMA . Next_physical_unit
16#0DD5#: 16#0#
2=> ! e dump_record_DMA . register_Selection
( 16#0DD8# ) DUMP_RECORD_DMA.REGISTER_SELECTION: KG_REG_0
2=> ! e /hex statistics . statistics_table
16#0DCD#: 16#FFFF#
16#0DCE#: 16#FFFD#
16#0DCF#: 16#FFFF#
16#0DD0#: 16#FFFD#
16#0DD1#: 16#1234#
2=> ! e memory_units.Corresponding_Table
( 16#0DB6# ) MEMORY_UNITS.CORRESPONDING_TABLE:
    ( 0 => 15, 1 => 14, 2 => 13, 3 => 12,
     4 => 11, 5 => 10, 6 => 9, 7 => 8,
     8 => 7, 9 => 6, 10 => 5, 11 => 4,
     12 => 3, 13 => 2, 14 => 1, 15 => 0 )
2=> !
2=> ! e /type=tm_parameters.T_ST1 tm_parameters.tm_Buffer (0)
( 16#0DAC# ) TM_PARAMETERS.T_ST1:
    MODE => KG_MODE_STANDBY
    TUGGLE_BIT => 0
    PROTECTION_STATUS => KG_PROTECTION_ENABLED
    SCRUBBING_STATUS => KG_SCRUBBING_ENABLED
    SCRUBBING_BANK => 0
    CHANNEL => KG_CHANNEL_1
    TM_MODE => KG_TM_MODE_NORMAL
    TC_MODE => KG_TC_MODE_NORMAL
    OPERATIONAL_ERROR_STATUS => KG_NORMAL
2=> ! e /type=tm_parameters.T_ST2_0 tm_parameters.tm_Buffer (1)
( 16#0DAD# ) TM_PARAMETERS.T_ST2_0:
    PHYSICAL_UNIT => 1
    LOGICAL_POINTER => 3839
2=> ! e /hex tm_parameters.tm_buffer
16#0DAC#: 16#2000#
16#0DAD#: 16#1EFF#
16#0DAE#: 16#0#
16#0DAF#: 16#0#
16#0DB0#: 16#0#

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Proc 1 HALTED Inst Count:*1116343 Clock:*1.429_964_8
R0:*4000 *0002 *0001 *0002 03E0 1FFF 0000 0000 IC:008C MK:4000 SW:4000
R8: 0000 0000 0000 0000 0000 7FFF 0000 *1FF4 PI: 0000 SU: 0 TSK: 0000
BP taken at MODES.END_DUMP_RECORD_REQUEST._54: LIM R15,16#3#,R15
1=> !
1=> !
1=> ! @print_dump_rec_param.cmd
2=> ! e modes . mode
( 16#0DA8# ) MODES.MODE: KG_MODE_SWITCH_ON
2=> ! e dump_record_DMA . Begin_Of_Stack_Detection
( 16#0DD6# ) DUMP_RECORD_DMA.BEGIN_OF_STACK_DETECTION: KG_NO
2=> ! e dump_record_DMA . End_Of_Stack_Detection
( 16#0DD7# ) DUMP_RECORD_DMA.END_OF_STACK_DETECTION: KG_NO
2=> ! e dump_record_DMA . Standby_Exec_Status
( 16#0DD9# ) DUMP_RECORD_DMA.STANDBY_EXEC_STATUS: KG_NO_EXEC
2=> ! e /hex dump_record_DMA . Current_Pointer
16#0DD2#: 16#EFF#
2=> ! e /hex dump_record_DMA . Current_physical_unit
16#0DD3#: 16#1#
2=> ! e /hex dump_record_DMA . Next_Pointer
16#0DD4#: 16#FO0#
2=> ! e /hex dump_record_DMA . Next_physical_unit
16#0DD5#: 16#0#
2=> ! e dump_record_DMA . register_Selection
( 16#0DD8# ) DUMP_RECORD_DMA.REGISTER_SELECTION: KG_REG_0
2=> ! e /hex statistics . statistics_table
16#0DCD#: 16#FFFF#
16#0DCE#: 16#FFF#
16#0DCF#: 16#FFF#
16#0DD0#: 16#FFF#
16#0DD1#: 16#1234#
2=> ! e memory_units.Corresponding_Table
( 16#0DB6# ) MEMORY_UNITS.CORRESPONDING_TABLE:
( 0 => 15, 1 => 14, 2 => 13, 3 => 12,
  4 => 11, 5 => 10, 6 => 9, 7 => 8,
  8 => 7, 9 => 6, 10 => 5, 11 => 4,
  12 => 3, 13 => 2, 14 => 1, 15 => 0 )
2=> !
2=> ! e /type=tm_parameters.T_ST1 tm_parameters.tm_Buffer (0)
( 16#0DAC# ) TM_PARAMETERS.T_ST1:
  MODE => KG_MODE_SWITCH_ON
  TUGGLE_BIT => 1
  PROTECTION_STATUS => KG_PROTECTION_ENABLED
  SCRUBBING_STATUS => KG_SCRUBBING_ENABLED
  SCRUBBING_BANK => 0
  CHANNEL => KG_CHANNEL_1
  TM_MODE => KG_TM_MODE_NORMAL
  TC_MODE => KG_TC_MODE_NORMAL
  OPERATIONAL_ERROR_STATUS => KG_NORMAL
2=> ! e /type=tm_parameters.T_ST2_0 tm_parameters.tm_Buffer (1)
( 16#0DAD# ) TM_PARAMETERS.T_ST2_0:
  PHYSICAL_UNIT => 1
  LOGICAL_POINTER => 3839
2=> ! e /hex tm_parameters.tm_buffer
16#0DAC#: 16#5000#
16#0DAD#: 16#1EFF#
16#0DAE#: 16#0#
16#0DAF#: 16#0#
16#0DB0#: 16#0#
16#0DB1#: 16#0#
16#0DB2#: 16#0#
16#0DB3#: 16#0#
16#0DB4#: 16#0#
1=> !
1=> ! @TM_request.cmd
2=> ! m /hex \pi := 0010
%TLDBG-E-TASKSYM - Task symbol \SCEDULER.CURRENT_TASK\ not found in symbol table
Proc 1 HALTED Inst Count: 1116343 Clock: 1.429_964_8
R0: 4000 0002 0001 0002 03E0 1FFF 0000 0000 IC: 008C MK: 4000 SW: 4000
R8: 0000 0000 0000 0000 0000 7FFF 0000 1FF4 PI: *0010 SU: 0 TSK: 0000
2=> ! go /wait
%TLDBG-E-TASKSYM - Task symbol \SCEDULER.CURRENT_TASK\ not found in symbol table
Proc 1 HALTED Inst Count:*1116361 Clock:*1.430_003
R0:*60B0 *0000 *0000 *3CBE 03E0 1FFF 0000 0000 IC: *0CDA MK: *0000 SW: 4000
R8: 0000 0000 0000 0000 0000 7FFF 0000 *1FF8 PI: 0010 SU: 0 TSK: 0000
BP taken at GEI_IT/ISELECT1+16#B3#: LST 16#DE1#
2=> ! go /wait

```

```
%TLDBG-E-TASKSYM - Task symbol \SCHEDULER.CURRENT_TASK\ not found in symbol table
Proc 1 HALTED Inst Count:*1116362 Clock:*1.430_008
R0: 60B0 0000 0000 3CBE 03E0 1FFF 0000 0000 IC:*0C73 MK:*20A0 SW:*0000
R8: 0000 0000 0000 0000 0000 7FFF 0000 1FF8 PI:*0000 SU: 0 TSK: 0000
BP taken at GEI_IT/ISELECT1+16#4C#: STI R15,16#E49#
2=> ! go/wait=2
IO Event: 16#8100#
IO Event occurred at INPUT_OUTPUT.READ_IO_REGISTER._28: XIO R2,16#0#,R4 (PI)
IO Event: 16#120#
IO Event occurred at INPUT_OUTPUT.WRITE_IO_REGISTER._35: XIO R4,16#0#,R2 (PO)
IO Event: 16#128#
IO Event occurred at INPUT_OUTPUT.WRITE_IO_REGISTER._35: XIO R4,16#0#,R2 (PO)
2=> ! halt
%TLDBG-E-TASKSYM - Task symbol \SCHEDULER.CURRENT_TASK\ not found in symbol table
Proc 1 HALTED Inst Count:*1116617 Clock:*1.430_658_45
R0: 60B0 0000 0000 3CBE 03E0 1FFF 0000 0000 IC:*0CDA MK:*0000 SW:*4000
R8: 0000 0000 0000 0000 0000 7FFF 0000 1FF8 PI: 0000 SU: 0 TSK: 0000
Halted at GEI_IT/ISELECT1+16#B3#: LST 16#DE1#
1=> !
1=> !
1=> !
1=> !
1=> !
1=> !
1=> !
=> exit
Exiting Debugger.
```

### 13.3.2 INPUT FILES

#### POR100-MD004.DAT

```
FFFF -- TM request n°1
FFFF -- TM request n°2
FFFF -- Continue Record - Page 01 of Unit A available
FFFF -- TM request n°3
FFFF -- Continue Record - Page 86 of Unit A available
FFFF -- TM request n°4
FFFF -- TM request n°5
FFDF -- Continue Record - Page 12 of Unit A not available
FFDF -- Continue Record - Page 00 of Unit B available
FFDF -- TM request n°6
FFE -- Continue Record - Page 17 of unit F not available
FFFE -- TM request n°7
FFFF -- TM request n°8
FFFF -- TM request n°9
FFFF -- TM request n°10
```

### 13.3.3 COMMANDS OUTPUT FILE

Command Type : TCD  
 No command sent on this port

Command Type : PADR0  
 Physical address programmed : 0a86

Command Type : PADR1  
 Physical address programmed : 0a01  
 Physical address programmed : 0b00

Command Type : ADSC  
 No command sent on this port

Command Type : DRMOD  
Stop Dump-Record DMA

Command Type : SCRMOD  
No command sent on this port

Command Type : PATW  
No command sent on this port

Command Type : DL  
No command sent on this port

Command Type : ENMUON  
No command sent on this port

Command Type : 64K  
No command sent on this port

### 13.3.4 TELEMETRY FILE

Line	ST2-7	ST1	ST2-0	ST2-1	ST2-2	ST2-3	ST2-4	ST2-5	ST2-6
0000	0000	3000	0000	0000	0000	0000	0000	0000	0000
0001	0000	2000	0fff	0000	0000	0000	0000	0000	0000
0002	0000	9000	aa00	0000	0000	0000	0000	0000	0000
0003	0000	8000	a585	0000	0000	0000	0000	0000	0000
0004	0000	9000	ffff	0000	0000	0000	0000	0000	0000
0005	0000	8000	aa11	0000	0000	0000	0000	0000	0020
0006	0000	9000	ff16	0000	0000	0000	0000	0000	0001
0007	0000	8000	0f00	0000	0000	0000	0000	0000	0000
0008	0000	3000	1eff	0000	0000	0000	0000	0000	0000
0009	0000	4000	1eff	0000	0000	0000	0000	0000	0000



## SSR SOHO

Ref : SOE.SH.NT.1259.ASTR  
Issue : 1 Rev. : 0  
Date : 13/09/2005  
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### 13.4 RFG\_MS002

<b>REPORT NB :</b> RFG_MS002 1	<b>REPORT DATE :</b> 25-JUL-05
FUNCTIONAL OR VALIDATION TEST EXECUTION REPORT	
Continue Scrubbing	
Manual / Automatical : A	
Used Software Version : FS203	
Test Responsible : V.MALLEVILLE	
Test Plan Identification :	
DOC_EFG 2 Rev 2	
Test Procedure Identification : RFG_MS002	
<b>TESTS CASES COVERED BY THE PROCEDURE :</b>	
EFG_MS040 Continue normal scrubbing	
EFG_MS041 Continue normal scrubbing with normal skip	
EFG_MS042 Continue normal scrubbing with extra skip	
EFG_MS043 Continue normal scrubbing - all stack OFF	
EFG_MS044 Continue normal scrubbing at end of stack	
EFG_MS045 Continue normal scrubbing at end of stack with skip	
EFG_MS046 Continue normal scrubbing - Stop command executing	
<b>IDENTIFIED DIFFERENCES WITH TEST PLAN CASES :</b>	
<b>TEST PROCEDURE STATUS :</b> OK	
<b>TEST INITIAL CONDITIONS :</b>	
FS203 context, after initialization in Standby mode (all units ON).	
Starting Execution Date and hour : 13-JUN-05 10h	
Total execution time : 4mn	
Defect numbers found during execution : 0 (For each defect, a defect sheet shall be filled).	

**JUSTIFICATION DOCUMENTS :**

- sequence execution listing,
- input (HW Units Status, DMA statistics) file,
- commands output file,
- telemetry file.

**TEST EXECUTION SYNTHESIS :**

- context is loaded,
- initial parameters values are verified,
- the 7 sequences are performed : corresponding IT is sent and after each IT handling completion, a TM request is sent.

**TEST RESULTS SYNTHESIS :**

Results of the 7 sequences :

- Continue Normal Scrubbing : OK.
- Continue Normal Scrubbing with normal skip : OK.
- Continue Normal Scrubbing with extra skip : OK.
- Continue Normal Scrubbing - All Stack OFF : OK.
- Continue Normal Scrubbing at end of stack : OK.
- Continue Normal Scrubbing at end of stack with skip : OK.
- Continue Normal Scrubbing - Stop command executing : OK.

For each sequence, whole verifications were performed successfully :

- mode is unchanged in local an TM parameters.
- update of bank, scrubbing pointer in local and TM parameters.
- update of statistics data words in local and TM parameters.
- HW commands are sent correctly and in the right order.

**CONCLUSION ON THE TEST AND ACTIONS :****13.4.1 SEQUENCE EXECUTION LISTING**

Log file started



## SSR SOHO

Ref : SOE.SH.NT.1259.ASTR  
Issue : 1 Rev. : 0  
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TLD Ada Symbolic Debugger TLDdbg VAX/1750A V-3.2.3 25-JUL-2005 16:30:21  
(c) TLD Systems, Ltd., 1993

```
1=> !
1=> ! @context_init.cmd
2=> ! attach tldmps 1750a
MPS: TLD 1750A Multiple Processor Simulator TLDmps V-1.5.1
MPS: (c) TLD Systems, Ltd., 1993
2=> !
2=> ! restore context_FS203
Loading at 16#00000#
Loading at 16#005DC#
Loading at 16#00BB8#
Loading at 16#01194#
Loading at 16#01770#
Loading at 16#01D4C#
Loading at 16#02328#
Loading at 16#02904#
Loading at 16#02EE0#
Loading at 16#034BC#
Loading at 16#03A98#
Loading at 16#04074#
Loading at 16#04650#
Loading at 16#04C2C#
Loading at 16#05208#
Loading at 16#057E4#
Loading at 16#05DC0#
Loading at 16#0639C#
Loading at 16#06978#
Loading at 16#06F54#
Loading at 16#07530#
Loading at 16#07B0C#
Loading at 16#080E8#
Loading at 16#086C4#
Loading at 16#08CA0#
Loading at 16#0927C#
Loading at 16#09858#
Loading at 16#09E34#
Loading at 16#0A410#
Loading at 16#0A9EC#
Loading at 16#0AFC8#
Loading at 16#0B5A4#
Loading at 16#0BB80#
Loading at 16#0C15C#
Loading at 16#0C738#
Loading at 16#0CD14#
Loading at 16#0D2F0#
Loading at 16#0D8CC#
Loading at 16#0DEA8#
Loading at 16#0E484#
Loading at 16#0EA60#
Loading at 16#0F03C#
Loading at 16#0F618#
Loading at 16#0FBF4#
Loading MMUSOHO.trb
Loading MMUSOHO.dbg
Breakpoint 1 at GES_SET_PU/JSECT ( 16#0000# )
Action: HALT execution
Breakpoint already set at location.
2=> !
2=> ! e /hex GES_SET_PU . VPES_ROM_Checksum_LSB
16#1FFF#: 16#29BA#
2=> ! e /hex GES_SET_PU . VPES_ROM_Checksum
16#1FFE#: 16#148D#
2=> !
2=> ! e /hex GES_SET_PU . VPES_Software_Ident_1
16#1FFC#: 16#CBCB#
2=> ! e /hex GES_SET_PU . VPES_Software_Ident_2
16#1FFD#: 16#101#
2=> !
2=> ! SPECIAL MPSSCONNECT PROGRAMMED INPUT 256 port100.in
2=> ! SPECIAL MPSSCONNECT PROGRAMMED INPUT 272 port110.in
2=> ! SPECIAL MPSSCONNECT PROGRAMMED INPUT 304 port130.in
2=> ! SPECIAL MPSSCONNECT PROGRAMMED INPUT 312 port138.in
2=> ! SPECIAL MPSSCONNECT PROGRAMMED INPUT 376 port178.in
2=> ! SPECIAL MPSSCONNECT PROGRAMMED OUTPUT 256 port100.out
2=> ! SPECIAL MPSSCONNECT PROGRAMMED OUTPUT 336 port150.out
```

```

2=> ! SPECIAL MPS$CONNECT PROGRAMMED OUTPUT 352 port160.out
2=> ! SPECIAL MPS$CONNECT PROGRAMMED OUTPUT 360 port168.out
2=> ! SPECIAL MPS$CONNECT PROGRAMMED OUTPUT 288 port120.out
2=> ! SPECIAL MPS$CONNECT PROGRAMMED OUTPUT 289 port121.out
2=> ! SPECIAL MPS$CONNECT PROGRAMMED OUTPUT 290 port122.out
2=> ! SPECIAL MPS$CONNECT PROGRAMMED OUTPUT 291 port123.out
2=> ! SPECIAL MPS$CONNECT PROGRAMMED OUTPUT 292 port124.out
2=> ! SPECIAL MPS$CONNECT PROGRAMMED OUTPUT 293 port125.out
2=> ! SPECIAL MPS$CONNECT PROGRAMMED OUTPUT 294 port126.out
2=> ! SPECIAL MPS$CONNECT PROGRAMMED OUTPUT 295 port127.out
2=> ! SPECIAL MPS$CONNECT PROGRAMMED OUTPUT 296 port128.out
2=> ! SPECIAL MPS$CONNECT PROGRAMMED OUTPUT 344 port158.out
2=> ! SPECIAL MPS$CONNECT PROGRAMMED OUTPUT 320 port140.out
2=> ! SPECIAL MPS$CONNECT PROGRAMMED OUTPUT 328 port148.out
2=> ! SPECIAL MPS$CONNECT PROGRAMMED OUTPUT 392 port188.out
2=> ! SPECIAL MPS$CONNECT PROGRAMMED OUTPUT 544 port220.out
2=> ! SPECIAL MPS$CONNECT PROGRAMMED OUTPUT 384 port180.out
2=> !
2=> ! set event /io/continue 16#180#
2=> ! set event /io/continue 16#220#
2=> ! set event /io/continue 16#188#
2=> ! set event /io/continue 16#148#
2=> ! set event /io/continue 16#140#
2=> ! set event /io/continue 16#158#
2=> ! set event /io/continue 16#128#
2=> ! set event /io/continue 16#120#
2=> ! set event /io/continue 16#168#
2=> ! set event /io/continue 16#160#
2=> ! set event /io/continue 16#150#
2=> ! set event /io/continue 16#100#
2=> !
2=> ! set event /io/continue 16#8100#
2=> ! set event /io/continue 16#8110#
2=> ! set event /io/continue 16#8130#
2=> ! set event /io/continue 16#8138#
2=> ! set event /io/continue 16#8178#
2=> !
2=> !
2=> ! set break GEI_IT . PEI01
Breakpoint 2 at GEI_IT.PEI01 ( 16#0BF8# )
    Action: HALT execution
2=> ! set break GEI_IT . PEI02
Breakpoint 3 at GEI_IT.PEI02 ( 16#1010# )
    Action: HALT execution
2=> ! set break GEI_IT . PEI03
Breakpoint 4 at GEI_IT.PEI03 ( 16#0C27# )
    Action: HALT execution
2=> ! set break GEI_IT . PEI04
Breakpoint 5 at GEI_IT.PEI04 ( 16#0C4D# )
    Action: HALT execution
2=> ! set break GEI_IT . PEI05
Breakpoint 6 at GEI_IT.PEI05 ( 16#0C73# )
    Action: HALT execution
2=> !
2=> ! set break GEI_IT . IEI05_END - 2
Breakpoint 7 at GEI_IT.IEI05_END-2 ( 16#0CDA# )
    Action: HALT execution
1=> !
1=> ! m /type=def_global_gen.T_Word Scrubbing_DMA . Scrubbing_Pointer := 0
1=> ! @print_scr_param.cmd
2=> ! e modes . mode
( 16#0DA8# ) MODES.MODE: KG_MODE_STANDBY
2=> ! e scrubbing_DMA . Stop_Exec_Status
( 16#0DCC# ) SCRUBBING_DMA.STOP_EXEC_STATUS: KG_NO_EXEC
2=> ! e scrubbing_DMA . Scrubbing_Status
( 16#0DC8# ) SCRUBBING_DMA.SCRUBBING_STATUS: KG_SCRUBBING_ENABLED
2=> ! e /hex scrubbing_DMA . Scrubbing_Pointer
16#0DC9#: 16#0#
2=> ! e /hex scrubbing_DMA . Ending_Pointer
16#0DCA#: 16#FFFE#
2=> ! e /hex statistics . statistics_table
16#0DCD#: 16#0#
16#0DCE#: 16#0#
16#0DCF#: 16#0#
16#0DD0#: 16#0#
16#0DD1#: 16#0#
2=> !

```

```

2=> ! e /type=tm_parameters.T_ST1 tm_parameters.tm_Buffer (0)
( 16#0DAC# ) TM_PARAMETERS.T_ST1:
    MODE => KG_MODE_STANDBY
    TUGGLE_BIT => 0
    PROTECTION_STATUS => KG_PROTECTION_ENABLED
    SCRUBBING_STATUS => KG_SCRUBBING_ENABLED
    SCRUBBING_BANK => 0
    CHANNEL => KG_CHANNEL_1
    TM_MODE => KG_TM_MODE_NORMAL
    TC_MODE => KG_TC_MODE_NORMAL
    OPERATIONAL_ERROR_STATUS => KG_NORMAL
2=> ! e /hex tm_parameters.tm_buffer
16#0DAC#: 16#2000#
16#0DAD#: 16#0#
16#0DAE#: 16#0#
16#0DAF#: 16#0#
16#0DB0#: 16#0#
16#0DB1#: 16#0#
16#0DB2#: 16#0#
16#0DB3#: 16#0#
16#0DB4#: 16#0#
1=> ! @TM_Request.cmd
2=> ! m /hex \pi := 0010
%TLDBG-E-TASKSYM - Task symbol \SCHEDULER.CURRENT_TASK\ not found in symbol table
Proc 1 HALTED Inst Count:*801860 Clock:0.992_004_1
R0: *60B0 *0000 *0160 *0000 *03E0 *1FF7 *0000 *0000 IC: *00EF MK: *60B0 SW: *4000
R8: *0000 *0000 *0000 *0000 *0000 *0000 *0000 *1FFA PI: *0010 SU: 0 TSK: *0000
2=> ! go /wait
%TLDBG-E-TASKSYM - Task symbol \SCHEDULER.CURRENT_TASK\ not found in symbol table
Proc 1 HALTED Inst Count:*801861 Clock:0.992_005_3
R0: 60B0 0000 0160 0000 03E0 1FF7 0000 0000 IC: *0C73 MK: *20A0 SW: *0000
R8: 0000 0000 0000 0000 0000 0000 1FF8 PI: *0000 SU: 0 TSK: 0000
BP taken at GEI_IT/ISELECT1+16#4C#: STI R15,16#E49#
2=> ! go /wait
IO Event: 16#8100#
IO Event occurred at INPUT_OUTPUT.READ_IO_REGISTER._28: XIO R2,16#0#,R4 (PI)
IO Event: 16#120#
IO Event occurred at INPUT_OUTPUT.WRITE_IO_REGISTER._35: XIO R4,16#0#,R2 (PO)
IO Event: 16#128#
IO Event occurred at INPUT_OUTPUT.WRITE_IO_REGISTER._35: XIO R4,16#0#,R2 (PO)
%TLDBG-E-TASKSYM - Task symbol \SCHEDULER.CURRENT_TASK\ not found in symbol table
Proc 1 HALTED Inst Count:*802117 Clock:0.992_657_35
R0: 60B0 0000 0160 0000 03E0 1FF7 0000 0000 IC: *0CDA MK: *0000 SW: *4000
R8: 0000 0000 0000 0000 0000 0000 1FF8 PI: 0000 SU: 0 TSK: 0000
BP taken at GEI_IT/ISELECT1+16#B3#: LST 16#DE1#
2=> ! go/wait=2
2=> ! halt
%TLDBG-E-TASKSYM - Task symbol \SCHEDULER.CURRENT_TASK\ not found in symbol table
Proc 1 HALTED Inst Count:*823917 Clock:1.022_799_35
R0: 60B0 0000 *0000 *0442 03E0 1FF7 0000 0000 IC: *011C MK: *60B0 SW: 4000
R8: 0000 0000 0000 0000 *7FFF 0000 1FF8 PI: 0000 SU: 0 TSK: 0000
Halted at MODES.BACKGROUND_TASK_ACTIVATION._137+16#2#: BR
MODES.BACKGROUND_TASK_ACTIVATION._123
1=> !
1=> !
1=> !
1=> !
1=> !
1=> ! m /hex Scrubbing_DMA . Scrubbing_pointer := 8A1
1=> ! m /type=tm_parameters.T_ST1 tm_parameters.TM_Buffer(0):=(Scrubbing_Bank=>17)
1=> ! m /hex statistics . statistics_Table (0) := FFFF
1=> ! m /hex statistics . statistics_Table (1) := BFFF
1=> ! m /hex statistics . statistics_Table (2) := FFFF
1=> ! m /hex statistics . statistics_Table (3) := BFFF
1=> ! m /hex statistics . statistics_Table (4) := 1235
1=> !
1=> ! @Receive_End_Scrubbing_IT.cmd
2=> ! m /hex \pi := 0080
%TLDBG-E-TASKSYM - Task symbol \SCHEDULER.CURRENT_TASK\ not found in symbol table
Proc 1 HALTED Inst Count: 823917 Clock: 1.022_799_35
R0: 60B0 0000 0000 0442 03E0 1FF7 0000 0000 IC: 011C MK: 60B0 SW: 4000
R8: 0000 0000 0000 0000 7FFF 0000 1FF8 PI: *0080 SU: 0 TSK: 0000
2=> ! go /wait
%TLDBG-E-TASKSYM - Task symbol \SCHEDULER.CURRENT_TASK\ not found in symbol table
Proc 1 HALTED Inst Count: *823918 Clock: *1.022_800_85
R0: 60B0 0000 0000 0442 03E0 1FF7 0000 0000 IC: *0C27 MK: *2000 SW: *0000
R8: 0000 0000 0000 0000 7FFF 0000 1FF8 PI: *0000 SU: 0 TSK: 0000

```

```

BP taken at GEI_IT/ISELECT1: STI          R15,16#E49#
1=> ! go /wait
IO Event: 16#8178#
IO Event occurred at INPUT_OUTPUT.READ_IO_REGISTER._28: XIO      R2,16#0#,R4 (PI)
IO Event: 16#8100#
IO Event occurred at INPUT_OUTPUT.READ_IO_REGISTER._28: XIO      R2,16#0#,R4 (PI)
IO Event: 16#150#
IO Event occurred at INPUT_OUTPUT.WRITE_IO_REGISTER._35: XIO      R4,16#0#,R2 (PO)
%TLDBDG-E-TASKSYM - Task symbol \SCHEDULER.CURRENT_TASK\ not found in symbol table
Proc 1 HALTED Inst Count:*824248 Clock:*1.023_347_35
R0: 60B0 0000 0000 0442 03E0 1FFF 0000 0000 IC:*0CDA MK:*0000 SW:*4000
R8: 0000 0000 0000 0000 0000 7FFF 0000 1FF8 PI: 0000 SU: 0 TSK: 0000
BP taken at GEI_IT/ISELECT1+16#B3#: LST      16#DE1#
1=> !
1=> ! go /wait=2
1=> ! halt
%TLDBDG-E-TASKSYM - Task symbol \SCHEDULER.CURRENT_TASK\ not found in symbol table
Proc 1 HALTED Inst Count:*846448 Clock:*1.054_042_35
R0: 60B0 0000 0000 *0898 03E0 1FFF 0000 0000 IC:*011C MK:*60B0 SW: 4000
R8: 0000 0000 0000 0000 0000 7FFF 0000 1FF8 PI: 0000 SU: 0 TSK: 0000
Halted at MODES.BACKGROUND_TASK_ACTIVATION._137+16#2#: BR
MODES.BACKGROUND_TASK_ACTIVATION._123
1=> ! @print_scr_param.cmd
2=> ! e modes . mode
( 16#0DA8# ) MODES.MODE: KG_MODE_STANDBY
2=> ! e scrubbing_DMA . Stop_Exec_Status
( 16#0DCC# ) SCRUBBING_DMA.STOP_EXEC_STATUS: KG_NO_EXEC
2=> ! e scrubbing_DMA . Scrubbing_Status
( 16#0DC8# ) SCRUBBING_DMA.SCRUBBING_STATUS: KG_SCRUBBING_ENABLED
2=> ! e /hex scrubbing_DMA . Scrubbing_Pointer
16#0DC9#: 16#8A2#
2=> ! e /hex scrubbing_DMA . Ending_Pointer
16#0DCA#: 16#FFFE#
2=> ! e /hex statistics . statistics_table
16#0DCD#: 16#FFFF#
16#0DCE#: 16#BFFF#
16#0DCF#: 16#FFFF#
16#0DD0#: 16#FFFF#
16#0DD1#: 16#1235#
2=> !
2=> ! e /type=tm_parameters.T_ST1 tm_parameters.tm_Buffer (0)
( 16#0DAC# ) TM_PARAMETERS.T_ST1:
    MODE => KG_MODE_STANDBY
    TUGGLE_BIT => 1
    PROTECTION_STATUS => KG_PROTECTION_ENABLED
    SCRUBBING_STATUS => KG_SCRUBBING_ENABLED
    SCRUBBING_BANK => 17
    CHANNEL => KG_CHANNEL_1
    TM_MODE => KG_TM_MODE_NORMAL
    TC_MODE => KG_TC_MODE_NORMAL
    OPERATIONAL_ERROR_STATUS => KG_NORMAL
2=> ! e /hex tm_parameters.tm_buffer
16#0DAD#: 16#3220#
16#0DAD#: 16#0#
16#0DAE#: 16#FFFF#
16#0DAF#: 16#BFFF#
16#0DB0#: 16#FFFF#
16#0DB1#: 16#FFFF#
16#0DB2#: 16#1235#
16#0DB3#: 16#0#
16#0DB4#: 16#0#
1=> !
1=> ! @TM_request.cmd
2=> ! m /hex \pi := 0010
%TLDBDG-E-TASKSYM - Task symbol \SCHEDULER.CURRENT_TASK\ not found in symbol table
Proc 1 HALTED Inst Count: 846448 Clock: 1.054_042_35
R0: 60B0 0000 0000 0898 03E0 1FFF 0000 0000 IC: 011C MK: 60B0 SW: 4000
R8: 0000 0000 0000 0000 0000 7FFF 0000 1FF8 PI: *0010 SU: 0 TSK: 0000
2=> ! go /wait
%TLDBDG-E-TASKSYM - Task symbol \SCHEDULER.CURRENT_TASK\ not found in symbol table
Proc 1 HALTED Inst Count:*846449 Clock:*1.054_043_85
R0: 60B0 0000 0000 0898 03E0 1FFF 0000 0000 IC: *0C73 MK: *20A0 SW: *0000
R8: 0000 0000 0000 0000 0000 7FFF 0000 1FF8 PI: *0000 SU: 0 TSK: 0000
BP taken at GEI_IT/ISELECT1+16#4C#: STI      R15,16#E49#
2=> ! go /wait
IO Event: 16#8100#
IO Event occurred at INPUT_OUTPUT.READ_IO_REGISTER._28: XIO      R2,16#0#,R4 (PI)

```

```

IO Event: 16#120#
IO Event occurred at INPUT_OUTPUT.WRITE_IO_REGISTER._35: XIO          R4,16#0#,R2 (PO)
IO Event: 16#128#
IO Event occurred at INPUT_OUTPUT.WRITE_IO_REGISTER._35: XIO          R4,16#0#,R2 (PO)
%TLDBBG-E-TASKSYM - Task symbol \SCHEDULER.CURRENT_TASK\ not found in symbol table
Proc 1 HALTED      Inst Count:*846704          Clock:*1.054_694_3
R0: 60B0 0000 0000 0898 03E0 1FF7 0000 0000 IC:*0CDA MK:*0000 SW:*4000
R8: 0000 0000 0000 0000 0000 7FFF 0000 1FF8 PI: 0000 SU: 0 TSK: 0000
BP taken at GEI_IT/ISECT1+16#B3#: LST          16#DE1#
2=> ! go/wait=2
2=> ! halt
%TLDBBG-E-TASKSYM - Task symbol \SCHEDULER.CURRENT_TASK\ not found in symbol table
Proc 1 HALTED      Inst Count:*864904          Clock:*1.079_859_3
R0: 60B0 0000 0000 *0C26 03E0 1FF7 0000 0000 IC:*011C MK:*60B0 SW: 4000
R8: 0000 0000 0000 0000 0000 7FFF 0000 1FF8 PI: 0000 SU: 0 TSK: 0000
Halted at MODES.BACKGROUND_TASK_ACTIVATION._137+16#2#: BR
MODES.BACKGROUND_TASK_ACTIVATION._123
1=> !
1=> !
1=> !
1=> !
1=> !
1=> !
1=> m modes . mode := KG_Mode_Dump
1=> m /type=tm_parameters.T_ST1 tm_parameters.TM_Buffer(0):=(Mode=>KG_Mode_Dump)
1=> m /hex Scrubbing_DMA . Scrubbing_pointer := 471
1=> m /type=tm_parameters.T_ST1 tm_parameters.TM_Buffer(0):=(Scrubbing_Bank=>17)
1=> m /hex statistics . statistics_Table (0) := FF7F
1=> m /hex statistics . statistics_Table (1) := FFFF
1=> m /hex statistics . statistics_Table (2) := FF7F
1=> m /hex statistics . statistics_Table (3) := FFFF
1=> m /hex statistics . statistics_Table (4) := 1235
1=> !
1=> @Receive_End_Scrubbing_IT.cmd
2=> ! m /hex \pi := 0080
%TLDBBG-E-TASKSYM - Task symbol \SCHEDULER.CURRENT_TASK\ not found in symbol table
Proc 1 HALTED      Inst Count: 864904          Clock: 1.079_859_3
R0: 60B0 0000 0000 0C26 03E0 1FF7 0000 0000 IC: 011C MK: 60B0 SW: 4000
R8: 0000 0000 0000 0000 0000 7FFF 0000 1FF8 PI: *0080 SU: 0 TSK: 0000
2=> ! go /wait
%TLDBBG-E-TASKSYM - Task symbol \SCHEDULER.CURRENT_TASK\ not found in symbol table
Proc 1 HALTED      Inst Count:*864905          Clock:*1.079_860_8
R0: 60B0 0000 0000 0C26 03E0 1FF7 0000 0000 IC:*0C27 MK:*2000 SW:*0000
R8: 0000 0000 0000 0000 0000 7FFF 0000 1FF8 PI: *0000 SU: 0 TSK: 0000
BP taken at GEI_IT/ISECT1: STI          R15,16#E49#
1=> ! go /wait
IO Event: 16#8178#
IO Event occurred at INPUT_OUTPUT.READ_IO_REGISTER._28: XIO          R2,16#0#,R4 (PI)
IO Event: 16#8100#
IO Event occurred at INPUT_OUTPUT.READ_IO_REGISTER._28: XIO          R2,16#0#,R4 (PI)
IO Event: 16#150#
IO Event occurred at INPUT_OUTPUT.WRITE_IO_REGISTER._35: XIO          R4,16#0#,R2 (PO)
%TLDBBG-E-TASKSYM - Task symbol \SCHEDULER.CURRENT_TASK\ not found in symbol table
Proc 1 HALTED      Inst Count:*865246          Clock:*1.080_422_35
R0: 60B0 0000 0000 0C26 03E0 1FF7 0000 0000 IC: *0CDA MK: *0000 SW: *4000
R8: 0000 0000 0000 0000 0000 7FFF 0000 1FF8 PI: 0000 SU: 0 TSK: 0000
BP taken at GEI_IT/ISECT1+16#B3#: LST          16#DE1#
1=> !
1=> ! go /wait=2
1=> ! halt
%TLDBBG-E-TASKSYM - Task symbol \SCHEDULER.CURRENT_TASK\ not found in symbol table
Proc 1 HALTED      Inst Count:*897246          Clock:*1.124_665_85
R0: 60B0 0000 0000 *1266 03E0 1FF7 0000 0000 IC: *011C MK: *60B0 SW: 4000
R8: 0000 0000 0000 0000 0000 7FFF 0000 1FF8 PI: 0000 SU: 0 TSK: 0000
Halted at MODES.BACKGROUND_TASK_ACTIVATION._137+16#2#: BR
MODES.BACKGROUND_TASK_ACTIVATION._123
1=> ! @print_scr_param.cmd
2=> ! e modes . mode
( 16#0DA8# ) MODES.MODE: KG_MODE_DUMP
2=> ! e scrubbing_DMA . Stop_Exec_Status
( 16#0DCC# ) SCRUBBING_DMA.STOP_EXEC_STATUS: KG_NO_EXEC
2=> ! e scrubbing_DMA . Scrubbing_Status
( 16#0DC8# ) SCRUBBING_DMA.SCRUBBING_STATUS: KG_SCRUBBING_ENABLED
2=> ! e /hex scrubbing_DMA . Scrubbing_Pointer
16#0DC9#: 16#472#
2=> ! e /hex scrubbing_DMA . Ending_Pointer
16#0DCA#: 16#FFFE#

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2=> ! e /hex statistics . statistics_table
16#0DCD#: 16#FFFF#
16#0DCE#: 16#FFFF#
16#0DCF#: 16#FF7F#
16#0DD0#: 16#FFFF#
16#0DD1#: 16#125D#
2=> !
2=> ! e /type=tm_parameters.T_ST1 tm_parameters.tm_Buffer (0)
( 16#0DAC# ) TM_PARAMETERS.T_ST1:
    MODE => KG_MODE_DUMP
    TUGGLE_BIT => 0
    PROTECTION_STATUS => KG_PROTECTION_ENABLED
    SCRUBBING_STATUS => KG_SCRUBBING_ENABLED
    SCRUBBING_BANK => 8
    CHANNEL => KG_CHANNEL_1
    TM_MODE => KG_TM_MODE_NORMAL
    TC_MODE => KG_TC_MODE_NORMAL
    OPERATIONAL_ERROR_STATUS => KG_NORMAL
2=> ! e /hex tm_parameters.tm_buffer
16#0DAC#: 16#6100#
16#0DAD#: 16#0#
16#0DAE#: 16#FFFF#
16#0DAF#: 16#FFFF#
16#0DB0#: 16#FF7F#
16#0DB1#: 16#FFFF#
16#0DB2#: 16#125D#
16#0DB3#: 16#0#
16#0DB4#: 16#0#
1=> !
1=> ! @TM_request.cmd
2=> ! m /hex \pi := 0010
%TLDBG-E-TASKSYM - Task symbol \SCHEDULER.CURRENT_TASK\ not found in symbol table
Proc 1 HALTED Inst Count: 897246 Clock: 1.124_665_85
R0: 60B0 0000 0000 1266 03E0 1FF7 0000 0000 IC: 011C MK: 60B0 SW: 4000
R8: 0000 0000 0000 0000 0000 7FFF 0000 1FF8 PI: *0010 SU: 0 TSK: 0000
2=> ! go /wait
%TLDBG-E-TASKSYM - Task symbol \SCHEDULER.CURRENT_TASK\ not found in symbol table
Proc 1 HALTED Inst Count: *897247 Clock: *1.124_667_35
R0: 60B0 0000 0000 1266 03E0 1FF7 0000 0000 IC: *0C73 MK: *20A0 SW: *0000
R8: 0000 0000 0000 0000 0000 7FFF 0000 1FF8 PI: *0000 SU: 0 TSK: 0000
BP taken at GEI_IT/ISELECT1+16#4C#: STI R15,16#E49#
2=> ! go /wait
IO Event: 16#8100#
IO Event occurred at INPUT_OUTPUT.READ_IO_REGISTER._28: XIO R2,16#0#,R4 (PI)
IO Event: 16#120#
IO Event occurred at INPUT_OUTPUT.WRITE_IO_REGISTER._35: XIO R4,16#0#,R2 (PO)
IO Event: 16#128#
IO Event occurred at INPUT_OUTPUT.WRITE_IO_REGISTER._35: XIO R4,16#0#,R2 (PO)
%TLDBG-E-TASKSYM - Task symbol \SCHEDULER.CURRENT_TASK\ not found in symbol table
Proc 1 HALTED Inst Count: *897503 Clock: *1.125_319_4
R0: 60B0 0000 0000 1266 03E0 1FF7 0000 0000 IC: *0CDA MK: *0000 SW: *4000
R8: 0000 0000 0000 0000 0000 7FFF 0000 1FF8 PI: 0000 SU: 0 TSK: 0000
BP taken at GEI_IT/ISELECT1+16#B3#: LST 16#DE1#
2=> ! go/wait=2
2=> ! halt
%TLDBG-E-TASKSYM - Task symbol \SCHEDULER.CURRENT_TASK\ not found in symbol table
Proc 1 HALTED Inst Count: *919503 Clock: *1.155_737_9
R0: 60B0 0000 0000 *16B2 03E0 1FF7 0000 0000 IC: *011C MK: *60B0 SW: 4000
R8: 0000 0000 0000 0000 0000 7FFF 0000 1FF8 PI: 0000 SU: 0 TSK: 0000
Halted at MODES.BACKGROUND_TASK_ACTIVATION._137+16#2#: BR
MODES.BACKGROUND_TASK_ACTIVATION._123
1=> !
1=> !
1=> !
1=> !
1=> !
1=> !
1=> ! m modes . mode := KG_Mode_Record
1=> ! m /type=tm_parameters.T_ST1 tm_parameters.TM_Buffer(0):=(Mode=>KG_Mode_Record)
1=> ! m /hex Scrubbing_DMA . Scrubbing_pointer := 6B8
1=> ! m /type=tm_parameters.T_ST1 tm_parameters.TM_Buffer(0):=(Scrubbing_Bank=>17)
1=> ! m /hex statistics . statistics_Table (0) := FFFF
1=> ! m /hex statistics . statistics_Table (1) := FFFF
1=> ! m /hex statistics . statistics_Table (2) := FFFF
1=> ! m /hex statistics . statistics_Table (3) := FFFF
1=> ! m /hex statistics . statistics_Table (4) := 1235
1=> !

```

```

1=> ! @Receive_End_Scrubbing_IT.cmd
2=> ! m /hex \pi := 0080
%TLDBG-E-TASKSYM - Task symbol \SCHEDULER.CURRENT_TASK\ not found in symbol table
Proc 1 HALTED Inst Count: 919503 Clock: 1.155_737_9

R0: 60B0 0000 0000 16B2 03E0 1FF7 0000 0000 IC: 011C MK: 60B0 SW: 4000
R8: 0000 0000 0000 0000 0000 7FFF 0000 1FF8 PI: *0080 SU: 0 TSK: 0000
2=> ! go /wait
%TLDBG-E-TASKSYM - Task symbol \SCHEDULER.CURRENT_TASK\ not found in symbol table
Proc 1 HALTED Inst Count: *919504 Clock: *1.155_739_4
R0: 60B0 0000 0000 16B2 03E0 1FF7 0000 0000 IC: *0C27 MK: *2000 SW: *0000
R8: 0000 0000 0000 0000 0000 7FFF 0000 1FF8 PI: *0000 SU: 0 TSK: 0000
BP taken at GEI_IT/ISELECT1: STI R15,16#E49#
1=> ! go /wait
IO Event: 16#8178#
IO Event occurred at INPUT_OUTPUT.READ_IO_REGISTER._28: XIO R2,16#0#,R4 (PI)
IO Event: 16#8100#
IO Event occurred at INPUT_OUTPUT.READ_IO_REGISTER._28: XIO R2,16#0#,R4 (PI)
IO Event: 16#150#
IO Event occurred at INPUT_OUTPUT.WRITE_IO_REGISTER._35: XIO R4,16#0#,R2 (PO)
%TLDBG-E-TASKSYM - Task symbol \SCHEDULER.CURRENT_TASK\ not found in symbol table
Proc 1 HALTED Inst Count: *919836 Clock: *1.156_287_85
R0: 60B0 0000 0000 16B2 03E0 1FF7 0000 0000 IC: *0CDA MK: *0000 SW: *4000
R8: 0000 0000 0000 0000 0000 7FFF 0000 1FF8 PI: 0000 SU: 0 TSK: 0000
BP taken at GEI_IT/ISELECT1+16#B3#: LST 16#DE1#
1=> !
1=> ! go /wait=2
1=> ! halt
%TLDBG-E-TASKSYM - Task symbol \SCHEDULER.CURRENT_TASK\ not found in symbol table
Proc 1 HALTED Inst Count: *937836 Clock: *1.181_176_35
R0: 60B0 0000 0000 *1A36 03E0 1FF7 0000 0000 IC: *011C MK: *60B0 SW: 4000
R8: 0000 0000 0000 0000 0000 7FFF 0000 1FF8 PI: 0000 SU: 0 TSK: 0000
Halted at MODES.BACKGROUND_TASK_ACTIVATION._137+16#2#: BR
MODES.BACKGROUND_TASK_ACTIVATION._123
1=> ! @print_scr_param.cmd
2=> ! e modes . mode
( 16#0DA8# ) MODES.MODE: KG_MODE_RECORD
2=> ! e scrubbing_DMA . Stop_Exec_Status
( 16#0DCC# ) SCRUBBING_DMA.STOP_EXEC_STATUS: KG_NO_EXEC
2=> ! e scrubbing_DMA . Scrubbing_Status
( 16#0DC8# ) SCRUBBING_DMA.SCRUBBING_STATUS: KG_SCRUBBING_ENABLED
2=> ! e /hex scrubbing_DMA . Scrubbing_Pointer
16#0DC9#: 16#6B9#
2=> ! e /hex scrubbing_DMA . Ending_Pointer
16#0DCA#: 16#FFFE#
2=> ! e /hex statistics . statistics_table
16#0DCD#: 16#FFFFB#
16#0DCE#: 16#FFFF#
16#0DCF#: 16#FFFF#
16#0DD0#: 16#FFFF#
16#0DD1#: 16#1235#
2=> !
2=> ! e /type=tm_parameters.T_ST1 tm_parameters.tm_Buffer (0)
( 16#0DAC# ) TM_PARAMETERS.T_ST1:
    MODE => KG_MODE_RECORD
    TUGGLE_BIT => 1
    PROTECTION_STATUS => KG_PROTECTION_ENABLED
    SCRUBBING_STATUS => KG_SCRUBBING_ENABLED
    SCRUBBING_BANK => 13

    CHANNEL => KG_CHANNEL_1
    TM_MODE => KG_TM_MODE_NORMAL
    TC_MODE => KG_TC_MODE_NORMAL
    OPERATIONAL_ERROR_STATUS => KG_NORMAL
2=> ! e /hex tm_parameters.tm_buffer
16#0DAD#: 16#91A0#
16#0DAD#: 16#0#
16#0DAE#: 16#FFFFB#
16#0DAF#: 16#FFFF#
16#0DB0#: 16#FFFF#
16#0DB1#: 16#FFFF#
16#0DB2#: 16#1235#
16#0DB3#: 16#0#
16#0DB4#: 16#0#
1=> !
1=> ! @TM_request.cmd
2=> ! m /hex \pi := 0010

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```
%TLDBG-E-TASKSYM - Task symbol \SCEDULER.CURRENT_TASK\ not found in symbol table
Proc 1 HALTED Inst Count: 937836 Clock: 1.181_176_35
R0: 60B0 0000 0000 1A36 03E0 1FF7 0000 0000 IC: 011C MK: 60B0 SW: 4000
R8: 0000 0000 0000 0000 0000 7FFF 0000 1FF8 PI: *0010 SU: 0 TSK: 0000
2=> ! go /wait
%TLDBG-E-TASKSYM - Task symbol \SCEDULER.CURRENT_TASK\ not found in symbol table
Proc 1 HALTED Inst Count: *937837 Clock: *1.181_177_85
R0: 60B0 0000 0000 1A36 03E0 1FF7 0000 0000 IC: *0C73 MK: *20A0 SW: *0000
R8: 0000 0000 0000 0000 0000 7FFF 0000 1FF8 PI: *0000 SU: 0 TSK: 0000
BP taken at GEI_IT/ISELECT1+16#4C#: STI R15,16#E49#
2=> ! go /wait
IO Event: 16#8100#
IO Event occurred at INPUT_OUTPUT.READ_IO_REGISTER._28: XIO R2,16#0#,R4 (PI)
IO Event: 16#120#
IO Event occurred at INPUT_OUTPUT.WRITE_IO_REGISTER._35: XIO R4,16#0#,R2 (PO)
IO Event: 16#128#
IO Event occurred at INPUT_OUTPUT.WRITE_IO_REGISTER._35: XIO R4,16#0#,R2 (PO)
%TLDBG-E-TASKSYM - Task symbol \SCEDULER.CURRENT_TASK\ not found in symbol table
Proc 1 HALTED Inst Count: *938092 Clock: *1.181_828_3
R0: 60B0 0000 0000 1A36 03E0 1FF7 0000 0000 IC: *0CDA MK: *0000 SW: *4000
R8: 0000 0000 0000 0000 0000 7FFF 0000 1FF8 PI: 0000 SU: 0 TSK: 0000
BP taken at GEI_IT/ISELECT1+16#B3#: LST 16#DE1#
2=> ! go/wait=2
2=> ! halt
%TLDBG-E-TASKSYM - Task symbol \SCEDULER.CURRENT_TASK\ not found in symbol table
Proc 1 HALTED Inst Count: *952892 Clock: *1.202_292_8
R0: 60B0 0000 0000 *1D1A 03E0 1FF7 0000 0000 IC: *011C MK: *60B0 SW: 4000
R8: 0000 0000 0000 0000 0000 7FFF 0000 1FF8 PI: 0000 SU: 0 TSK: 0000
Halted at MODES.BACKGROUND_TASK_ACTIVATION._137+16#2#: BR
MODES.BACKGROUND_TASK_ACTIVATION._123
1=> !
1=> !
1=> !
1=> !
1=> !
1=> ! m modes . mode := KG_Mode_Standby
1=> ! m /type=tm_parameters.T_ST1 tm_parameters.TM_Buffer(0) := (Mode=>KG_Mode_Standby)
1=> ! m /hex Scrubbing_DMA . Scrubbing_pointer := 708
1=> ! m /type=tm_parameters.T_ST1 tm_parameters.TM_Buffer(0) := (Scrubbing_Bank=>14)
1=> ! m /hex statistics . statistics_Table (0) := FFFF
1=> ! m /hex statistics . statistics_Table (1) := FFFF
1=> ! m /hex statistics . statistics_Table (2) := FFFD
1=> ! m /hex statistics . statistics_Table (3) := FFFF
1=> ! m /hex statistics . statistics_Table (4) := 1235
1=> !
1=> ! @Receive_End_Scrubbing_IT.cmd
2=> ! m /hex \pi := 0080
%TLDBG-E-TASKSYM - Task symbol \SCEDULER.CURRENT_TASK\ not found in symbol table
Proc 1 HALTED Inst Count: 952892 Clock: 1.202_292_8
R0: 60B0 0000 0000 1D1A 03E0 1FF7 0000 0000 IC: 011C MK: 60B0 SW: 4000
R8: 0000 0000 0000 0000 0000 7FFF 0000 1FF8 PI: *0080 SU: 0 TSK: 0000
2=> ! go /wait
%TLDBG-E-TASKSYM - Task symbol \SCEDULER.CURRENT_TASK\ not found in symbol table
Proc 1 HALTED Inst Count: *952893 Clock: *1.202_294_3
R0: 60B0 0000 0000 1D1A 03E0 1FF7 0000 0000 IC: *0C27 MK: *2000 SW: *0000
R8: 0000 0000 0000 0000 0000 7FFF 0000 1FF8 PI: *0000 SU: 0 TSK: 0000
BP taken at GEI_IT/ISELECT1: STI R15,16#E49#
1=> ! go /wait
IO Event: 16#8178#
IO Event occurred at INPUT_OUTPUT.READ_IO_REGISTER._28: XIO R2,16#0#,R4 (PI)
IO Event: 16#8100#
IO Event occurred at INPUT_OUTPUT.READ_IO_REGISTER._28: XIO R2,16#0#,R4 (PI)
IO Event: 16#8100#
IO Event occurred at INPUT_OUTPUT.READ_IO_REGISTER._28: XIO R2,16#0#,R4 (PI)
IO Event: 16#8100#
IO Event occurred at INPUT_OUTPUT.READ_IO_REGISTER._28: XIO R2,16#0#,R4 (PI)
IO Event: 16#150#
IO Event occurred at INPUT_OUTPUT.WRITE_IO_REGISTER._35: XIO R4,16#0#,R2 (PO)
%TLDBG-E-TASKSYM - Task symbol \SCEDULER.CURRENT_TASK\ not found in symbol table
Proc 1 HALTED Inst Count: *953361 Clock: *1.203_067_2
R0: 60B0 0000 0000 1D1A 03E0 1FF7 0000 0000 IC: *0CDA MK: *0000 SW: *4000
R8: 0000 0000 0000 0000 0000 7FFF 0000 1FF8 PI: 0000 SU: 0 TSK: 0000
BP taken at GEI_IT/ISELECT1+16#B3#: LST 16#DE1#
1=> !
1=> ! go /wait=2
1=> ! halt
```

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%TLDBB-E-TASKSYM - Task symbol \SCHEDULER.CURRENT_TASK\ not found in symbol table
Proc 1 HALTED Inst Count: *968361 Clock: *1.223_808_2
R0: 60B0 0000 0000 *2008 03E0 1FF7 0000 0000 IC: *011C MK: *60B0 SW: 4000
R8: 0000 0000 0000 0000 0000 7FFF 0000 1FF8 PI: 0000 SU: 0 TSK: 0000
Halted at MODES.BACKGROUND_TASK_ACTIVATION._137+16#2#: BR
MODES.BACKGROUND_TASK_ACTIVATION._123
1=> ! @print_scr_param.cmd
2=> ! e modes . mode
( 16#0DA8# ) MODES.MODE: KG_MODE_STANDBY
2=> ! e scrubbing_DMA . Stop_Exec_Status
( 16#0DCC# ) SCRUBBING_DMA.STOP_EXEC_STATUS: KG_NO_EXEC
2=> ! e scrubbing_DMA . Scrubbing_Status
( 16#0DC8# ) SCRUBBING_DMA.SCRUBBING_STATUS: KG_SCRUBBING_ENABLED
2=> ! e /hex scrubbing_DMA . Scrubbing_Pointer
16#0DC9#: 16#900#
2=> ! e /hex scrubbing_DMA . Ending_Pointer
16#0DCA#: 16#FFFF#
2=> ! e /hex statistics . statistics_table
16#0DCD#: 16#FFFF#
16#0DCE#: 16#FFFF#
16#0DCF#: 16#FFFFD#
16#0DD0#: 16#FFFF#
16#0DD1#: 16#1232#
2=> !
2=> ! e /type=tm_parameters.T_ST1 tm_parameters.tm_Buffer (0)
( 16#0DAC# ) TM_PARAMETERS.T_ST1:
    MODE => KG_MODE_STANDBY
    TUGGLE_BIT => 0
    PROTECTION_STATUS => KG_PROTECTION_ENABLED
    SCRUBBING_STATUS => KG_SCRUBBING_ENABLED
    SCRUBBING_BANK => 18
    CHANNEL => KG_CHANNEL_1

    TM_MODE => KG_TM_MODE_NORMAL
    TC_MODE => KG_TC_MODE_NORMAL
    OPERATIONAL_ERROR_STATUS => KG_NORMAL
2=> ! e /hex tm_parameters.tm_buffer
16#0DAC#: 16#2240#
16#0DAD#: 16#0#
16#0DAE#: 16#FFFF#
16#0DAF#: 16#FFFF#
16#0DB0#: 16#FFFFD#
16#0DB1#: 16#FFFF#
16#0DB2#: 16#1232#
16#0DB3#: 16#F80#
16#0DB4#: 16#0#
1=> !
1=> ! @TM_request.cmd
2=> ! m /hex \pi := 0010
%TLDBB-E-TASKSYM - Task symbol \SCHEDULER.CURRENT_TASK\ not found in symbol table
Proc 1 HALTED Inst Count: 968361 Clock: 1.223_808_2
R0: 60B0 0000 0000 2008 03E0 1FF7 0000 0000 IC: 011C MK: 60B0 SW: 4000
R8: 0000 0000 0000 0000 0000 7FFF 0000 1FF8 PI: *0010 SU: 0 TSK: 0000
2=> ! go /wait
%TLDBB-E-TASKSYM - Task symbol \SCHEDULER.CURRENT_TASK\ not found in symbol table
Proc 1 HALTED Inst Count: *968362 Clock: *1.223_809_7
R0: 60B0 0000 0000 2008 03E0 1FF7 0000 0000 IC: *0C73 MK: *20A0 SW: *0000
R8: 0000 0000 0000 0000 0000 7FFF 0000 1FF8 PI: *0000 SU: 0 TSK: 0000
BP taken at GEI_IT/ISELECT1+16#4C#: STI R15, 16#E49#
2=> ! go /wait
IO Event: 16#8100#
IO Event occurred at INPUT_OUTPUT.READ_IO_REGISTER._28: XIO R2, 16#0#, R4 (PI)
IO Event: 16#120#
IO Event occurred at INPUT_OUTPUT.WRITE_IO_REGISTER._35: XIO R4, 16#0#, R2 (PO)
IO Event: 16#128#
IO Event occurred at INPUT_OUTPUT.WRITE_IO_REGISTER._35: XIO R4, 16#0#, R2 (PO)
%TLDBB-E-TASKSYM - Task symbol \SCHEDULER.CURRENT_TASK\ not found in symbol table
Proc 1 HALTED Inst Count: *968618 Clock: *1.224_461_75
R0: 60B0 0000 0000 2008 03E0 1FF7 0000 0000 IC: *0CDA MK: *0000 SW: *4000
R8: 0000 0000 0000 0000 0000 7FFF 0000 1FF8 PI: 0000 SU: 0 TSK: 0000
BP taken at GEI_IT/ISELECT1+16#B3#: LST 16#DE1#
2=> ! go/wait=2
2=> ! halt
%TLDBB-E-TASKSYM - Task symbol \SCHEDULER.CURRENT_TASK\ not found in symbol table
Proc 1 HALTED Inst Count: *990418 Clock: *1.254_603_75
R0: 60B0 0000 0000 *244A 03E0 1FF7 0000 0000 IC: *011C MK: *60B0 SW: 4000
R8: 0000 0000 0000 0000 0000 7FFF 0000 1FF8 PI: 0000 SU: 0 TSK: 0000
```

```

Halted at MODES.BACKGROUND_TASK_ACTIVATION._137+16#2#: BR
MODES.BACKGROUND_TASK_ACTIVATION._123
1=> !
1=> !
1=> !
1=> !
1=> !
1=> !
1=> ! m modes . mode := KG_Mode_Standby
1=> ! m /type=tm_parameters.T_ST1 tm_parameters.TM_Buffer(0):=(Mode=>KG_Mode_Standby)
1=> ! m /hex Scrubbing_DMA . Scrubbing_pointer := FFF
1=> ! m /type=tm_parameters.T_ST1 tm_parameters.TM_Buffer(0):=(Scrubbing_Bank=>31)
1=> ! m /hex statistics . statistics_Table (0) := FFFF
1=> ! m /hex statistics . statistics_Table (1) := FFFE
1=> ! m /hex statistics . statistics_Table (2) := FFFF
1=> ! m /hex statistics . statistics_Table (3) := FFFE
1=> ! m /hex statistics . statistics_Table (4) := 1235
1=> !
1=> ! @Receive_End_Scrubbing_IT.cmd
2=> ! m /hex \pi := 0080
%TLDBG-E-TASKSYM - Task symbol \SCEDULER.CURRENT_TASK\ not found in symbol table
Proc 1 HALTED Inst Count: 990418 Clock: 1.254_603_75
R0: 60B0 0000 0000 244A 03E0 1FF7 0000 0000 IC: 011C MK: 60B0 SW: 4000
R8: 0000 0000 0000 0000 0000 7FFF 0000 1FF8 PI: *0080 SU: 0 TSK: 0000
2=> ! go /wait
%TLDBG-E-TASKSYM - Task symbol \SCEDULER.CURRENT_TASK\ not found in symbol table
Proc 1 HALTED Inst Count: *990419 Clock: *1.254_605_25
R0: 60B0 0000 0000 244A 03E0 1FF7 0000 0000 IC: *0C27 MK: *2000 SW: *0000
R8: 0000 0000 0000 0000 0000 7FFF 0000 1FF8 PI: *0000 SU: 0 TSK: 0000
BP taken at GEI_IT/ISELECT1: STI R15,16#E49#
1=> ! go /wait
IO Event: 16#8178#
IO Event occurred at INPUT_OUTPUT.READ_IO_REGISTER._28: XIO R2,16#0#,R4 (PI)
IO Event: 16#8100#
IO Event occurred at INPUT_OUTPUT.READ_IO_REGISTER._28: XIO R2,16#0#,R4 (PI)
IO Event: 16#8100#
IO Event occurred at INPUT_OUTPUT.READ_IO_REGISTER._28: XIO R2,16#0#,R4 (PI)
IO Event: 16#8100#
IO Event occurred at INPUT_OUTPUT.READ_IO_REGISTER._28: XIO R2,16#0#,R4 (PI)
IO Event: 16#8100#
IO Event occurred at INPUT_OUTPUT.READ_IO_REGISTER._28: XIO R2,16#0#,R4 (PI)
IO Event: 16#150#
IO Event occurred at INPUT_OUTPUT.WRITE_IO_REGISTER._35: XIO R4,16#0#,R2 (PO)
%TLDBG-E-TASKSYM - Task symbol \SCEDULER.CURRENT_TASK\ not found in symbol table
Proc 1 HALTED Inst Count: *990941 Clock: *1.255_465_45
R0: 60B0 0000 0000 244A 03E0 1FF7 0000 0000 IC: *0CDA MK: *0000 SW: *4000
R8: 0000 0000 0000 0000 0000 7FFF 0000 1FF8 PI: 0000 SU: 0 TSK: 0000
BP taken at GEI_IT/ISELECT1+16#B3#: LST 16#DE1#
1=> !
1=> ! go /wait=2
1=> ! halt
%TLDBG-E-TASKSYM - Task symbol \SCEDULER.CURRENT_TASK\ not found in symbol table
Proc 1 HALTED Inst Count: *1006941 Clock: *1.277_588_95
R0: 60B0 0000 0000 *276A 03E0 1FF7 0000 0000 IC: *011C MK: *60B0 SW: 4000
R8: 0000 0000 0000 0000 0000 7FFF 0000 1FF8 PI: 0000 SU: 0 TSK: 0000
Halted at MODES.BACKGROUND_TASK_ACTIVATION._137+16#2#: BR
MODES.BACKGROUND_TASK_ACTIVATION._123
1=> ! @print_scr_param.cmd
2=> ! e modes . mode
( 16#0DA8# ) MODES.MODE: KG_MODE_STANDBY
2=> ! e scrubbing_DMA . Stop_Exec_Status
( 16#0DCC# ) SCRUBBING_DMA.STOP_EXEC_STATUS: KG_NO_EXEC
2=> ! e scrubbing_DMA . Scrubbing_Status
( 16#0DC8# ) SCRUBBING_DMA.SCRUBBING_STATUS: KG_SCRUBBING_ENABLED
2=> ! e /hex scrubbing_DMA . Scrubbing_Pointer
16#0DC9#: 16#300#
2=> ! e /hex scrubbing_DMA . Ending_Pointer
16#0DCA#: 16#FFFF#
2=> ! e /hex statistics . statistics_table
16#0DCD#: 16#FFFF#
16#0DCE#: 16#FFFF#
16#0DCF#: 16#FFFF#
16#0DD0#: 16#FFFF#
16#0DD1#: 16#1235#
2=> !
2=> ! e /type=tm_parameters.T_ST1 tm_parameters.tm_Buffer (0)
( 16#0DAC# ) TM_PARAMETERS.T_ST1:

```

```

MODE => KG_MODE_STANDBY
TUGGLE_BIT => 1
PROTECTION_STATUS => KG_PROTECTION_ENABLED
SCRUBBING_STATUS => KG_SCRUBBING_ENABLED
SCRUBBING_BANK => 6
CHANNEL => KG_CHANNEL_1
TM_MODE => KG_TM_MODE_NORMAL
TC_MODE => KG_TC_MODE_NORMAL
OPERATIONAL_ERROR_STATUS => KG_NORMAL
2=> ! e /hex tm_parameters.tm_buffer
16#0DAC#: 16#30C0#
16#0DAD#: 16#0#
16#0DAE#: 16#FFFF#
16#0DAF#: 16#FFFE#
16#0DB0#: 16#FFFF#
16#0DB1#: 16#FFFE#
16#0DB2#: 16#1235#
16#0DB3#: 16#E3FF#
16#0DB4#: 16#0#
1=> !
1=> ! @TM_request.cmd
2=> ! m /hex \pi := 0010
%TLDBG-E-TASKSYM - Task symbol \SCEDULER.CURRENT_TASK\ not found in symbol table
Proc 1 HALTED Inst Count: 1006941 Clock: 1.277_588_95
R0: 60B0 0000 0000 276A 03E0 1FF7 0000 0000 IC: 011C MK: 60B0 SW: 4000
R8: 0000 0000 0000 0000 0000 7FFF 0000 1FF8 PI: *0010 SU: 0 TSK: 0000
2=> ! go /wait
%TLDBG-E-TASKSYM - Task symbol \SCEDULER.CURRENT_TASK\ not found in symbol table
Proc 1 HALTED Inst Count: *1006942 Clock: *1.277_590_45
R0: 60B0 0000 0000 276A 03E0 1FF7 0000 0000 IC: *0C73 MK: *20A0 SW: *0000
R8: 0000 0000 0000 0000 0000 7FFF 0000 1FF8 PI: *0000 SU: 0 TSK: 0000
BP taken at GEI_IT/ISELECT1+16#4C#: STI R15,16#E49#
2=> ! go /wait
IO Event: 16#8100#
IO Event occurred at INPUT_OUTPUT.READ_IO_REGISTER._28: XIO R2,16#0#,R4 (PI)
IO Event: 16#120#
IO Event occurred at INPUT_OUTPUT.WRITE_IO_REGISTER._35: XIO R4,16#0#,R2 (PO)
IO Event: 16#128#
IO Event occurred at INPUT_OUTPUT.WRITE_IO_REGISTER._35: XIO R4,16#0#,R2 (PO)
%TLDBG-E-TASKSYM - Task symbol \SCEDULER.CURRENT_TASK\ not found in symbol table
Proc 1 HALTED Inst Count: *1007197 Clock: *1.278_240_9
R0: 60B0 0000 0000 276A 03E0 1FF7 0000 0000 IC: *0CDA MK: *0000 SW: *4000
R8: 0000 0000 0000 0000 0000 7FFF 0000 1FF8 PI: 0000 SU: 0 TSK: 0000
BP taken at GEI_IT/ISELECT1+16#B3#: LST 16#DE1#
2=> ! go/wait=2
2=> ! halt
%TLDBG-E-TASKSYM - Task symbol \SCEDULER.CURRENT_TASK\ not found in symbol table
Proc 1 HALTED Inst Count: *1021597 Clock: *1.298_152_4
R0: 60B0 0000 0000 *2A3A 03E0 1FF7 0000 0000 IC: *011C MK: *60B0 SW: 4000
R8: 0000 0000 0000 0000 0000 7FFF 0000 1FF8 PI: 0000 SU: 0 TSK: 0000
Halted at MODES.BACKGROUND_TASK_ACTIVATION._137+16#2#: BR
MODES.BACKGROUND_TASK_ACTIVATION._123
1=> !
1=> !
1=> !
1=> !
1=> !
1=> !
1=> ! m modes . mode := KG_Mode_Standby
1=> ! m /type=tm_parameters.T_ST1 tm_parameters.TM_Buffer(0) := (Mode=>KG_Mode_Standby)
1=> ! m /hex Scrubbing_DMA . Scrubbing_pointer := EFF
1=> ! m /type=tm_parameters.T_ST1 tm_parameters.TM_Buffer(0) := (Scrubbing_Bank=>30)
1=> ! m /hex statistics . statistics_Table (0) := FFFF
1=> ! m /hex statistics . statistics_Table (1) := FFFF
1=> ! m /hex statistics . statistics_Table (2) := FFFF
1=> ! m /hex statistics . statistics_Table (3) := FFFF
1=> ! m /hex statistics . statistics_Table (4) := 1235
1=> !
1=> ! @Receive_End_Scrubbing_IT.cmd
2=> ! m /hex \pi := 0080
%TLDBG-E-TASKSYM - Task symbol \SCEDULER.CURRENT_TASK\ not found in symbol table
Proc 1 HALTED Inst Count: 1021597 Clock: 1.298_152_4
R0: 60B0 0000 0000 2A3A 03E0 1FF7 0000 0000 IC: 011C MK: 60B0 SW: 4000
R8: 0000 0000 0000 0000 0000 7FFF 0000 1FF8 PI: *0080 SU: 0 TSK: 0000
2=> ! go /wait
%TLDBG-E-TASKSYM - Task symbol \SCEDULER.CURRENT_TASK\ not found in symbol table
Proc 1 HALTED Inst Count: *1021598 Clock: *1.298_153_9

```

```

R0: 60B0 0000 0000 2A3A 03E0 1FF7 0000 0000 IC: *0C27 MK: *2000 SW: *0000
R8: 0000 0000 0000 0000 0000 7FFF 0000 1FF8 PI: *0000 SU: 0 TSK: 0000
BP taken at GEI_IT/ISECT1: STI R15,16#E49#
1=> ! go /wait
IO Event: 16#8178#
IO Event occurred at INPUT_OUTPUT.READ_IO_REGISTER._28: XIO R2,16#0#,R4 (PI)
IO Event: 16#8100#
IO Event occurred at INPUT_OUTPUT.READ_IO_REGISTER._28: XIO R2,16#0#,R4 (PI)
IO Event: 16#8100#
IO Event occurred at INPUT_OUTPUT.READ_IO_REGISTER._28: XIO R2,16#0#,R4 (PI)
IO Event: 16#8100#
IO Event occurred at INPUT_OUTPUT.READ_IO_REGISTER._28: XIO R2,16#0#,R4 (PI)
IO Event: 16#8100#
IO Event occurred at INPUT_OUTPUT.READ_IO_REGISTER._28: XIO R2,16#0#,R4 (PI)
IO Event: 16#8100#
IO Event occurred at INPUT_OUTPUT.READ_IO_REGISTER._28: XIO R2,16#0#,R4 (PI)
IO Event: 16#8100#
IO Event occurred at INPUT_OUTPUT.WRITE_IO_REGISTER._35: XIO R4,16#0#,R2 (PO)
%TLDBG-E-TASKSYM - Task symbol \SCHEDULER.CURRENT_TASK\ not found in symbol table
Proc 1 HALTED Inst Count: *1022182 Clock: *1.299_116_8
R0: 60B0 0000 0000 2A3A 03E0 1FF7 0000 0000 IC: *0CDA MK: *0000 SW: *4000
R8: 0000 0000 0000 0000 0000 7FFF 0000 1FF8 PI: 0000 SU: 0 TSK: 0000
BP taken at GEI_IT/ISECT1+16#B3#: LST 16#DE1#
1=> !
1=> ! go /wait=2
1=> ! halt
%TLDBG-E-TASKSYM - Task symbol \SCHEDULER.CURRENT_TASK\ not found in symbol table
Proc 1 HALTED Inst Count: *1051582 Clock: *1.339_765_8
R0: 60B0 0000 0000 *2FF8 03E0 1FF7 0000 0000 IC: *011C MK: *60B0 SW: 4000
R8: 0000 0000 0000 0000 0000 7FFF 0000 1FF8 PI: 0000 SU: 0 TSK: 0000
Halted at MODES.BACKGROUND_TASK_ACTIVATION._137+16#2#: BR
MODES.BACKGROUND_TASK_ACTIVATION._123
1=> ! @print_scr_param.cmd
2=> ! e modes . mode
( 16#0DA8# ) MODES.MODE: KG_MODE_STANDBY
2=> ! e scrubbing_DMA . Stop_Exec_Status
( 16#0DCC# ) SCRUBBING_DMA.STOP_EXEC_STATUS: KG_NO_EXEC
2=> ! e scrubbing_DMA . Scrubbing_Status
( 16#0DC8# ) SCRUBBING_DMA.SCRUBBING_STATUS: KG_SCRUBBING_ENABLED
2=> ! e /hex scrubbing_DMA . Scrubbing_Pointer
16#0DC9#: 16#300#
2=> ! e /hex scrubbing_DMA . Ending_Pointer
16#0DCA#: 16#FFFE#
2=> ! e /hex statistics . statistics_table
16#0DCD#: 16#FFFF#
16#0DCE#: 16#FFFFB#
16#0DCF#: 16#FFFF#
16#0DD0#: 16#FFFB#
16#0DD1#: 16#1235#
2=> !
2=> ! e /type=tm_parameters.T_ST1 tm_parameters.tm_Buffer (0)
( 16#0DAC# ) TM_PARAMETERS.T_ST1:
    MODE => KG_MODE_STANDBY
    TUGGLE_BIT => 0
    PROTECTION_STATUS => KG_PROTECTION_ENABLED
    SCRUBBING_STATUS => KG_SCRUBBING_ENABLED
    SCRUBBING_BANK => 6
    CHANNEL => KG_CHANNEL_1
    TM_MODE => KG_TM_MODE_NORMAL
    TC_MODE => KG_TC_MODE_NORMAL
    OPERATIONAL_ERROR_STATUS => KG_NORMAL
2=> ! e /hex tm_parameters.tm_buffer
16#0DAD#: 16#20C0#
16#0DAD#: 16#0#
16#0DAE#: 16#FFFF#
16#0DAF#: 16#FFFFB#
16#0DB0#: 16#FFFF#
16#0DB1#: 16#FFFB#
16#0DB2#: 16#1235#
16#0DB3#: 16#E3FF#
16#0DB4#: 16#0#
1=> !
1=> ! @TM_request.cmd
2=> ! m /hex \pi := 0010
%TLDBG-E-TASKSYM - Task symbol \SCHEDULER.CURRENT_TASK\ not found in symbol table
Proc 1 HALTED Inst Count: 1051582 Clock: 1.339_765_8
R0: 60B0 0000 0000 2FF8 03E0 1FF7 0000 0000 IC: 011C MK: 60B0 SW: 4000

```

```

R8: 0000 0000 0000 0000 0000 7FFF 0000 1FF8 PI:*0010 SU: 0 TSK: 0000
2=> ! go /wait
%TLDBG-E-TASKSYM - Task symbol \SCEDULER.CURRENT_TASK\ not found in symbol table
Proc 1 HALTED Inst Count: *1051583 Clock: *1.339_767_3
R0: 60B0 0000 0000 2FF8 03E0 1FF7 0000 0000 IC: *0C73 MK: *20A0 SW: *0000
R8: 0000 0000 0000 0000 0000 7FFF 0000 1FF8 PI: *0000 SU: 0 TSK: 0000
BP taken at GEI_IT/ISELECT1+16#4C#: STI R15,16#E49#
2=> ! go /wait
IO Event: 16#8100#
IO Event occurred at INPUT_OUTPUT.READ_IO_REGISTER._28: XIO R2,16#0#,R4 (PI)
IO Event: 16#120#
IO Event occurred at INPUT_OUTPUT.WRITE_IO_REGISTER._35: XIO R4,16#0#,R2 (PO)
IO Event: 16#128#
IO Event occurred at INPUT_OUTPUT.WRITE_IO_REGISTER._35: XIO R4,16#0#,R2 (PO)
%TLDBG-E-TASKSYM - Task symbol \SCEDULER.CURRENT_TASK\ not found in symbol table
Proc 1 HALTED Inst Count: *1051839 Clock: *1.340_419_35
R0: 60B0 0000 0000 2FF8 03E0 1FF7 0000 0000 IC: *0CDA MK: *0000 SW: *4000
R8: 0000 0000 0000 0000 0000 7FFF 0000 1FF8 PI: 0000 SU: 0 TSK: 0000
BP taken at GEI_IT/ISELECT1+16#B3#: LST 16#DE1#
2=> ! go/wait=2
2=> ! halt
%TLDBG-E-TASKSYM - Task symbol \SCEDULER.CURRENT_TASK\ not found in symbol table
Proc 1 HALTED Inst Count: *1066639 Clock: *1.360_883_85
R0: 60B0 0000 0000 *32DC 03E0 1FF7 0000 0000 IC: *011C MK: *60B0 SW: 4000
R8: 0000 0000 0000 0000 0000 7FFF 0000 1FF8 PI: 0000 SU: 0 TSK: 0000
Halted at MODES.BACKGROUND_TASK_ACTIVATION._137+16#2#: BR
MODES.BACKGROUND_TASK_ACTIVATION._123
1=> !
1=> !
1=> !
1=> !
1=> !
1=> !
1=> !
1=> m modes . mode := KG_Mode_Standby
1=> m /type=tm_parameters.T_ST1 tm_parameters.TM_Buffer(0) := (Mode=>KG_Mode_Standby)
1=> m /hex Scrubbing_DMA . Scrubbing_pointer := 708
1=> m /type=tm_parameters.T_ST1 tm_parameters.TM_Buffer(0) := (Scrubbing_Bank=>17)
1=> m scrubbing_DMA . Stop_Exec_Status := KG_Exec
1=> m /hex statistics . statistics_Table (0) := FFFF
1=> m /hex statistics . statistics_Table (1) := FFFF
1=> m /hex statistics . statistics_Table (2) := FFFF
1=> m /hex statistics . statistics_Table (3) := FFFF
1=> m /hex statistics . statistics_Table (4) := 1235
1=> !
1=> ! @Receive_End_Scrubbing_IT.cmd
2=> ! m /hex \pi := 0080
%TLDBG-E-TASKSYM - Task symbol \SCEDULER.CURRENT_TASK\ not found in symbol table
Proc 1 HALTED Inst Count: 1066639 Clock: 1.360_883_85
R0: 60B0 0000 0000 32DC 03E0 1FF7 0000 0000 IC: 011C MK: 60B0 SW: 4000
R8: 0000 0000 0000 0000 0000 7FFF 0000 1FF8 PI: *0080 SU: 0 TSK: 0000
2=> ! go /wait
%TLDBG-E-TASKSYM - Task symbol \SCEDULER.CURRENT_TASK\ not found in symbol table
Proc 1 HALTED Inst Count: *1066640 Clock: *1.360_885_35
R0: 60B0 0000 0000 32DC 03E0 1FF7 0000 0000 IC: *0C27 MK: *2000 SW: *0000
R8: 0000 0000 0000 0000 0000 7FFF 0000 1FF8 PI: *0000 SU: 0 TSK: 0000
BP taken at GEI_IT/ISELECT1: STI R15,16#E49#
1=> ! go /wait
IO Event: 16#8178#
IO Event occurred at INPUT_OUTPUT.READ_IO_REGISTER._28: XIO R2,16#0#,R4 (PI)
IO Event: 16#8100#
IO Event occurred at INPUT_OUTPUT.READ_IO_REGISTER._28: XIO R2,16#0#,R4 (PI)
IO Event: 16#8100#
IO Event occurred at INPUT_OUTPUT.READ_IO_REGISTER._28: XIO R2,16#0#,R4 (PI)
IO Event: 16#8100#
IO Event occurred at INPUT_OUTPUT.READ_IO_REGISTER._28: XIO R2,16#0#,R4 (PI)
IO Event: 16#8100#
IO Event occurred at INPUT_OUTPUT.READ_IO_REGISTER._28: XIO R2,16#0#,R4 (PI)
IO Event: 16#8100#
IO Event occurred at INPUT_OUTPUT.READ_IO_REGISTER._28: XIO R2,16#0#,R4 (PI)
IO Event: 16#8100#
IO Event occurred at INPUT_OUTPUT.READ_IO_REGISTER._28: XIO R2,16#0#,R4 (PI)
IO Event: 16#8100#
IO Event occurred at INPUT_OUTPUT.READ_IO_REGISTER._28: XIO R2,16#0#,R4 (PI)
IO Event: 16#8100#
IO Event occurred at INPUT_OUTPUT.READ_IO_REGISTER._28: XIO R2,16#0#,R4 (PI)
IO Event: 16#8100#
IO Event occurred at INPUT_OUTPUT.READ_IO_REGISTER._28: XIO R2,16#0#,R4 (PI)

```

```

IO Event: 16#8100# R2,16#0#,R4 (PI)
IO Event occurred at INPUT_OUTPUT.READ_IO_REGISTER._28: XIO R2,16#0#,R4 (PI)
IO Event: 16#8100# R2,16#0#,R4 (PI)
IO Event occurred at INPUT_OUTPUT.READ_IO_REGISTER._28: XIO R2,16#0#,R4 (PI)
IO Event: 16#8100# R2,16#0#,R4 (PI)
IO Event occurred at INPUT_OUTPUT.READ_IO_REGISTER._28: XIO R2,16#0#,R4 (PI)
IO Event: 16#8100# R2,16#0#,R4 (PI)
IO Event occurred at INPUT_OUTPUT.READ_IO_REGISTER._28: XIO R2,16#0#,R4 (PI)
IO Event: 16#8100# R2,16#0#,R4 (PI)
IO Event occurred at INPUT_OUTPUT.READ_IO_REGISTER._28: XIO R2,16#0#,R4 (PI)
IO Event: 16#8100# R2,16#0#,R4 (PI)
IO Event occurred at INPUT_OUTPUT.READ_IO_REGISTER._28: XIO R2,16#0#,R4 (PI)
IO Event: 16#8100# R2,16#0#,R4 (PI)
IO Event occurred at INPUT_OUTPUT.READ_IO_REGISTER._28: XIO R2,16#0#,R4 (PI)
IO Event: 16#8100# R2,16#0#,R4 (PI)
IO Event occurred at INPUT_OUTPUT.READ_IO_REGISTER._28: XIO R2,16#0#,R4 (PI)
IO Event: 16#8100# R2,16#0#,R4 (PI)
IO Event occurred at INPUT_OUTPUT.WRITE_IO_REGISTER._35: XIO R4,16#0#,R2 (PO)
%TLDBG-E-TASKSYM - Task symbol \SCHEDULER.CURRENT_TASK\ not found in symbol table
Proc 1 HALTED Inst Count:*1067963 Clock:*1.363_086_1
R0: 60B0 0000 0000 32DC 03E0 1FF7 0000 0000 IC: *0CDA MK: *0000 SW: *4000
R8: 0000 0000 0000 0000 7FFF 0000 1FF8 PI: 0000 SU: 0 TSK: 0000
BP taken at GEI_IT/ISELECT1+16#B3#: LST 16#DE1#
1=> !
1=> ! go /wait=2
1=> ! halt
%TLDBG-E-TASKSYM - Task symbol \SCHEDULER.CURRENT_TASK\ not found in symbol table
Proc 1 HALTED Inst Count:*1086163 Clock:*1.388_251_1
R0: 60B0 0000 0000 *366A 03E0 1FF7 0000 0000 IC: *011C MK: *60B0 SW: 4000
R8: 0000 0000 0000 0000 7FFF 0000 1FF8 PI: 0000 SU: 0 TSK: 0000
Halted at MODES.BACKGROUND_TASK_ACTIVATION._137+16#2#: BR
MODES.BACKGROUND_TASK_ACTIVATION._123
1=> ! @print_scr_param.cmd
2=> ! e modes . mode
( 16#0DA8# ) MODES.MODE: KG_MODE_STANDBY
2=> ! e scrubbing_DMA . Stop_Exec_Status
( 16#0DCC# ) SCRUBBING_DMA.STOP_EXEC_STATUS: KG_EXEC
2=> ! e scrubbing_DMA . Scrubbing_Status
( 16#0DC8# ) SCRUBBING_DMA.SCRUBBING_STATUS: KG_SCRUBBING_ENABLED
2=> ! e /hex scrubbing_DMA . Scrubbing_Pointer
16#0DC9#: 16#708#
2=> ! e /hex scrubbing_DMA . Ending_Pointer
16#0DCA#: 16#FFFE#
2=> ! e /hex statistics . statistics_table
16#0DCD#: 16#FFFF#
16#0DCE#: 16#FFFF#
16#0DCF#: 16#FFFFD#
16#0DD0#: 16#FFFF#
16#0DD1#: 16#1232#
2=> !
2=> ! e /type=tm_parameters.T_ST1 tm_parameters.tm_Buffer (0)
( 16#0DAC# ) TM_PARAMETERS.T_ST1:
    MODE => KG_MODE_STANDBY
    TUGGLE_BIT => 1
    PROTECTION_STATUS => KG_PROTECTION_ENABLED
    SCRUBBING_STATUS => KG_SCRUBBING_ENABLED
    SCRUBBING_BANK => 17
    CHANNEL => KG_CHANNEL_1
    TM_MODE => KG_TM_MODE_NORMAL
    TC_MODE => KG_TC_MODE_NORMAL
    OPERATIONAL_ERROR_STATUS => KG_NORMAL
2=> ! e /hex tm_parameters.tm_buffer
16#0DAD#: 16#3220#
16#0DAD#: 16#0#
16#0DAE#: 16#FFFF#
16#0DAF#: 16#FFFF#
16#0DB0#: 16#FFFFD#
16#0DB1#: 16#FFFF#
16#0DB2#: 16#1232#
16#0DB3#: 16#E3FF#
16#0DB4#: 16#0#
1=> !
1=> ! @TM_request.cmd
2=> ! m /hex \pi := 0010
%TLDBG-E-TASKSYM - Task symbol \SCHEDULER.CURRENT_TASK\ not found in symbol table
Proc 1 HALTED Inst Count: 1086163 Clock: 1.388_251_1
R0: 60B0 0000 0000 366A 03E0 1FF7 0000 0000 IC: 011C MK: 60B0 SW: 4000

```

```

R8: 0000 0000 0000 0000 0000 7FFF 0000 1FF8 PI:*0010 SU: 0 TSK: 0000
2=> ! go /wait
%TLDBG-E-TASKSYM - Task symbol \SCHEDULER.CURRENT_TASK\ not found in symbol table
Proc 1 HALTED Inst Count:*1086164 Clock:*1.388_252_6
R0: 60B0 0000 0000 366A 03E0 1FF7 0000 0000 IC:*0C73 MK:*20A0 SW:*0000
R8: 0000 0000 0000 0000 0000 7FFF 0000 1FF8 PI:0000 SU: 0 TSK: 0000
BP taken at GEI_IT/ISELECT1+16#4C#: STI R15,16#E49#
2=> ! go /wait
IO Event: 16#8100#
IO Event occurred at INPUT_OUTPUT.READ_IO_REGISTER._28: XIO R2,16#0#,R4 (PI)
IO Event: 16#120#
IO Event occurred at INPUT_OUTPUT.WRITE_IO_REGISTER._35: XIO R4,16#0#,R2 (PO)
IO Event: 16#128#
IO Event occurred at INPUT_OUTPUT.WRITE_IO_REGISTER._35: XIO R4,16#0#,R2 (PO)
%TLDBG-E-TASKSYM - Task symbol \SCHEDULER.CURRENT_TASK\ not found in symbol table
Proc 1 HALTED Inst Count:*1086419 Clock:*1.388_903_05
R0: 60B0 0000 0000 366A 03E0 1FF7 0000 0000 IC:*0CDA MK:*0000 SW:*4000
R8: 0000 0000 0000 0000 0000 7FFF 0000 1FF8 PI: 0000 SU: 0 TSK: 0000
BP taken at GEI_IT/ISELECT1+16#B3#: LST 16#DE1#
2=> ! go/wait=2
2=> ! halt
%TLDBG-E-TASKSYM - Task symbol \SCHEDULER.CURRENT_TASK\ not found in symbol table
Proc 1 HALTED Inst Count:*1102219 Clock:*1.410_750_05
R0: 60B0 0000 0000 *3980 03E0 1FF7 0000 0000 IC:*011C MK:*60B0 SW: 4000
R8: 0000 0000 0000 0000 0000 7FFF 0000 1FF8 PI: 0000 SU: 0 TSK: 0000
Halted at MODES.BACKGROUND_TASK_ACTIVATION._137+16#2#: BR
MODES.BACKGROUND_TASK_ACTIVATION._123
1=> !
1=> !
1=> !
1=> !
1=> !
1=> !
=>
=> exit
Exiting Debugger.

```

### 13.4.2 INPUT FILES

#### POR100-MS002.DAT

```

FFFF --- TM request n°1
FFFF --- Continue Normal Scrubbing - page A2 of unit 8 available
FFFF --- TM request n°2
F07F --- Continue Normal Scrubbing - page 72 of unit 4 not available
F07F --- 00 5
F07F --- 6
F07F --- 7
F07F --- 8
F07F --- 9 available
FFFF --- TM request n°3
1C00 --- Continue Normal Scrubbing - page B9 of unit 6 not available
1C00 --- 00 7
1C00 --- 8
1C00 --- 9
1C00 --- A
1C00 --- B
1C00 --- C
1C00 --- D
1C00 --- E
1C00 --- F
1C00 --- 0
1C00 --- 1
1C00 --- 2
1C00 --- 3 available
1C00 --- TM request n°4

```



SSR SOHO

Ref : SOE.SH.NT.1259.ASTR  
Issue : 1 Rev. : 0  
Date : 13/09/2005  
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## PORT178-MS002.DAT

```
0080 -- Continue Normal Scrubbing - Stats of page A1 - unit 8
0050 -- Continue Normal Scrubbing - Stats of page 71 - unit 4
0008 --
0005 --
FF00 --
0000 --
0005 --
```

### 13.4.3 COMMANDS OUTPUT FILE

Command Type : TCD  
No command sent on this port

Command Type : PADR0  
No command sent on this port

Command Type : PADR1  
No command sent on this port

Command	Type :	ADSC
Physical address	programmed	: 08a2
Physical address	programmed	: 0472
Physical address	programmed	: 06b9
Physical address	programmed	: 0900
Physical address	programmed	: 0300
Physical address	programmed	: 0300

Command Type : DRMOD  
No command sent on this port

Command Type : SCRMOD



## SSR SOHO

Ref : SOE.SH.NT.1259.ASTR  
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Stop Scrubbing DMA

Command Type : PATW  
No command sent on this port

Command Type : DL  
No command sent on this port

Command Type : ENMUON  
No command sent on this port

Command Type : 64K  
No command sent on this port

### 13.4.4 TELEMETRY FILE

Line	ST2-7	ST1	ST2-0	ST2-1	ST2-2	ST2-3	ST2-4	ST2-5	ST2-6
0000	0000	3000	0000	0000	0000	0000	0000	0000	0000
0001	0000	2220	0000	ffff	bfff	ffff	ffff	1235	0000
0002	0000	7100	0000	ffff	ffff	ff7f	ffff	125d	0000
0003	0000	81a0	0000	ffffb	ffff	ffff	ffff	1235	0f80
0004	0000	3240	0000	ffff	ffff	ffffd	ffff	1232	e3ff
0005	0000	20c0	0000	ffff	ffffe	ffff	ffffe	1235	e3ff
0006	0000	30c0	0000	ffff	ffffb	ffff	ffffb	1235	e3ff
0007	0000	2220	0000	ffff	ffff	ffffd	ffff	1232	ffff



## SSR SOHO

Ref : SOE.SH.NT.1259.ASTR  
Issue : 1 Rev. : 0  
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